Title V Emissions Inventory
SPARS Web Manual

Iowa Department of Natural Resources
Air Quality Bureau

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Introduction

Facilities subject to the Title V Operating Permit Program are required to submit emissions inventories every year by no later than March 31st.

The purpose of this manual is to explain how you can use the Iowa DNR's State Permitting and Air Reporting System (SPARS) to submit an electronic copy of your facility's Title V emissions inventory.

To this end, this manual thoroughly describes the five steps of the SPARS Web submittal process: (1) Updating the facility's site information; (2) Creating the inventory; (3) Completing the inventory; (4) Reviewing the inventory; and (5) Submitting the inventory.

It is important to remember, however, that preparing before working in SPARS Web is essential to facilitate a successful submittal process. This preparation includes, at a minimum, the gathering the following materials:

1. A copy of the last inventory that your facility submitted;
2. Copies of your construction permits, especially those that you received after your facility's last inventory submittal;
3. Construction, installation, and start-operation dates for any emission points, emissions units, control equipment, or monitoring equipment that started operation after the last inventory was submitted;
4. Cease-operation dates for any emission points, emissions units, control equipment, or monitoring equipment that discontinued operation after the last inventory was submitted;
5. Total amount of each raw material used by your facility's emissions units/processes during the Inventory Year;
6. Emission factors to calculate potential and actual emissions for emission units/processes that were not included in your facility's last inventory; and
7. Electronic documents to be attached to your new electronic inventory.

Once your inventory has been submitted using SPARS Web, there is no need to send a hard copy to the Iowa DNR. It might be useful, however, to print a copy of your electronic inventory to keep it at your facility for easy access and to be used as a reference when completing your next inventory.

1.0 Definitions and Abbreviations

Actual Emissions – Air emissions calculated using the emission unit's actual operating hours, production rates, and quantities of materials processed, stored, or combusted for the calendar year

Ammonia (NH3) – NH3, also known as anhydrous ammonia, is a colorless, highly irritating gas with a pungent, suffocating odor. About 80% of the ammonia produced by industry is used in agriculture as fertilizer. Ammonia is also used as a refrigerant gas, for purification of water supplies, and in the manufacture of plastics, explosives, textiles, pesticides, dyes, and other chemicals. Exposure to high concentrations of ammonia in air causes immediate burning of the nose, throat, and respiratory tract.

Appeon – A tool used to deploy entire PowerBuilder applications to the Web. Appeon consists of three parts: a developer, a server, and a server web component.

Application Query Tool – A DataWindow which is used to access, view, create, edit, or delete electronic documents found in SPARS.

AQB – *Air Quality Bureau*. This bureau administers DNR's air quality program.

AQB plant number – A seven-digit identifier generated by the AQB Records Center for sources of air pollution.

Carbon Monoxide (CO) – CO is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. CO is poisonous even to healthy people at high levels in the air. It can affect the central nervous system and people with heart disease.

Client/server - A description for applications that have a local (client) user interface but access data on a remote server. The application distributes the work between the local machine and the server, depending on the strengths of the front-end and back-end products.

Control Equipment (CE) – A CE is a device or system that collects or destroys one or more air pollutants from a polluted gas and releases the cleaned gas to the atmosphere through an emission point.

Criteria Pollutants – These refer to six air pollutants commonly found all over the United States. They are particulate matter, ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead.

DNR Phase – Indicates the status of a SPARS electronic document that is currently being completed or modified by an AQB user.

Emissions Inventory – A listing, by source, of the amounts of pollutants actually or potentially discharged over a period of time – usually annually.

Emission Factor – The relationship between the amount of pollution produced and the amount of raw material processed or number of product units produced.

Emissions Unit (EU) – An EU is the equipment or process that generates emissions of regulated air pollutants. Emissions units may be grouped for reporting potential and actual emissions *only* if the emissions units are identical and they exhaust to the same emission point.

Emission Point (EP) – An EP is a stack or vent through which effluent gases along with any air pollutants are discharged to the atmosphere.

Facility Administrator – A requestor who receives access to SPARS in order to manage SPARS user accounts for his/her company's employees and consultants. A facility administrator may also be the responsible official for his/her company.

Facility User – An external SPARS user with the ability to create, delete, update, and review SPARS electronic documents while in the INDUSTRY phase.

FINAL Phase – Indicates the status of a SPARS electronic document that has been reviewed and approved in its entirety by the AQB.

Fugitive Emissions – Air emissions which are not released through stacks or vents, such as unpaved plant roads, outdoor storage piles swept by the wind, surface mining, rock crushing, leaks in plant equipment such as valves, pump seals, flanges, sampling connections, etc.

Greenhouse Gases – Gases that absorb and emit radiation within the thermal infrared range. These gases trap heat in the atmosphere. The main greenhouse gases that enter the atmosphere because of human activities are: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases (hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride). Iowa Code section 455B.131, as amended by Senate File 485 in 2007, requires the department to include estimates of emissions of greenhouse gases in its construction permitting and emissions inventory programs.

Ground-level Ozone – Ground-level or "bad" ozone is not emitted directly into the air, but is created by chemical reactions between oxides of nitrogen (NOx) and volatile organic compounds (VOC) in the presence of sunlight. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of NOx and VOC.

Hazardous Air Pollutants (HAPs) – HAPs are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects or adverse environmental effects.

HTML – *Hyper Text Markup Language*. The authoring language used to create documents on the World Wide Web.

INDUSTRY Phase – Indicates the status of a SPARS electronic document that is currently being completed or modified by a facility user.

INITIAL Phase – Indicates the status of a SPARS electronic document that has been submitted to the AQB and it is ready for review by AQB users.

Inventory Year – The year for which the actual air emissions from the entire facility are calculated and reported.

Iowa DNR – *Iowa Department of Natural Resources*. Government agency responsible for maintaining state parks and forests, protecting the environment, and managing energy, fish, wildlife, land, and water resources in Iowa.

Lead (Pb) – Pb is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system.

LEGAL Phase – Indicates the status of a SPARS electronic document that is currently being reviewed by an Iowa DNR attorney to determine whether requests for data confidentiality meet legal requirements.

Nitrogen Oxides (NOx) – NOx is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Many of the nitrogen oxides are colorless and odorless. However, one common pollutant, nitrogen dioxide (NO2) along with particles in the air can often be seen as a reddish-brown layer over many urban areas. NOx is one of the main ingredients involved in the formation of ground-level ozone, which can trigger serious respiratory problems. Among several other concerns, NOx contributes to formation of acid rain and it reacts to form toxic chemicals.

North American Industry Classification System (NAICS) – The NAICS is a six-digit code used by business and government to classify and measure economic activity in Canada, Mexico, and the United States. The first five digits are generally the same in all three countries. The last digit designates national industries. The first two digits designate the largest business sector, the third digit designates the subsector, the fourth digit designates the industry group, and the fifth digit designates particular industries.

Oracle Database – It is a relational database management system developed by Oracle Corporation.

Particulate Matter (PM) – PM is a complex mixture of extremely small particles and liquid droplets. Particle pollution is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The Environmental Protection Agency groups particle pollution into two categories:

- "Inhalable coarse particles," such as those found near roadways and dusty industries, are larger than 2.5 micrometers and smaller than 10 micrometers in diameter.
- "Fine particles," such as those found in smoke and haze, are 2.5 micrometers in diameter and smaller. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from power plants, industries, and automobiles react in the air.

PDF – *Portable Document Format*. A file format which captures formatting information from a variety of desktop publishing applications.

Phase Codes – Codes used to indicate the submittal and completion status of all applications and inventories.

PIN – Personal Identification Number. This "number" consists of letters and numbers and it is used to submit electronic documents to the AQB using SPARS Web.

PowerBuilder – A computer application development system that includes tools for drawing the user interface and reports and accessing database content.

Responsible Official – A requestor who receives an electronic signature device created by the AQB and uses it to submit electronic documents using SPARS Web. *"Responsible Official"* means one of the following:

1. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

- The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or
- The delegation of authority to such representative is approved in advance by the permitting authority.

2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

3. For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this chapter, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of a the agency (e.g., a regional administrator of EPA); or

4. For Title IV affected sources:

- The designated representative insofar as actions, standards, requirements, or prohibitions under Title IV of the Act or the regulations promulgated thereunder are concerned; and
- The designated representative for any other purposes under this chapter or the Act.

A facility's responsible official is legally accountable for the truth and accuracy of the information submitted under his/her name and for ensuring that his/her company meets any deadlines required by Iowa and federal codes.

REVIEW Phase – Indicates the status of a SPARS electronic document that is currently under review by the AQB.

Site Management – A DataWindow used to access and edit the following facility's information: name, location, mailing address, air quality classification, plant number, equipment identification, equipment description, name and addresses for its contacts, latitude, longitude, UTM coordinates.

Source Classification Codes (SCCs) – The Environmental Protection Agency uses SCCs and area and mobile sources (AMS) codes to classify different type of anthropogenic emission activities. SCCs have 8 digits for point sources, while AMS codes have 10 digits, and sometimes include a leading "A" as an eleventh character. The codes use a hierarchical system in which the definition of the code gets increasingly more specific as you move from left to right.

SPARS – *State Permitting and Air Reporting System*. An Oracle database with a PowerBuilder front-end used to receive and store air quality electronic documents.

SPARS Access Request Form for Facility Administrators – A form required by the AQB to be completed and submitted by a facility's employee who will be responsible for managing SPARS user accounts for said facility. Only facility employees may request a SPARS Facility Administrator account.

SPARS Access Request Form for Responsible Officials – A form required by the AQB to be completed and submitted by a facility's employee who will be responsible for submitting electronic documents using SPARS Web. Only the facility's Responsible Official may request a SPARS Responsible Official account.

SPARS Site ID – A twelve-digit number generated by SPARS.

SPARS Web – An application that gives external users the ability to access SPARS data and submit electronic documents to the AQB using the internet.

Standard Industrial Classification (SIC) Code – The SIC code is a four-digit code used to categorize industries in terms of the nature of their business.

Sulfur Dioxide (SO_2) – SO_2 belongs to the family of sulfur oxide gases. SO_2 contributes to respiratory illness and aggravates existing heart and lung diseases. It also contributes to the formation of acid rain.

TIFF – *Tagged Image File Format*. One of the most widely supported file formats for storing bit-mapped images on personal computers.

UTM – *Universal Transverse Mercator*. The UTM coordinate system is a grid-based method of specifying locations on the surface of the Earth.

Volatile Organic Compounds (VOCs) – VOCs are compounds that have a high vapor pressure and low water solubility. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, pharmaceuticals, and refrigerants. VOCs have been found to be a major factor to ozone, a common air pollutant which has been proven to be a public health hazard.

2.0 Getting to know SPARS Web

As mentioned before, the main objective of this manual is to ensure that you acquire the necessary knowledge to submit your minor source emissions inventories using SPARS Web. The first step in accomplishing this objective is to learn what SPARS Web is, what it does, and how it communicates with you.

2.1 What is SPARS Web?

SPARS (*State Permitting and Air Reporting System*) is composed of an Oracle database and a PowerBuilder interface to access the contents of this database. PowerBuilder has a native data-handling object called a DataWindow, which can be used to create, edit, and display data from a database. SPARS Web has two main DataWindows: Site Management and the Application Query Tool.

2.1.1 Site Management

The Site Management DataWindow (see Figure 2.1) allows the user to access information such as facility name, AQB plant number, SPARS site ID, location, address, responsible official contact information, equipment identification and description, latitude, longitude, UTM coordinates, etc. It also allows the user to edit certain information, such us description and specification for emission units, emission points, control equipment, and monitoring equipment.

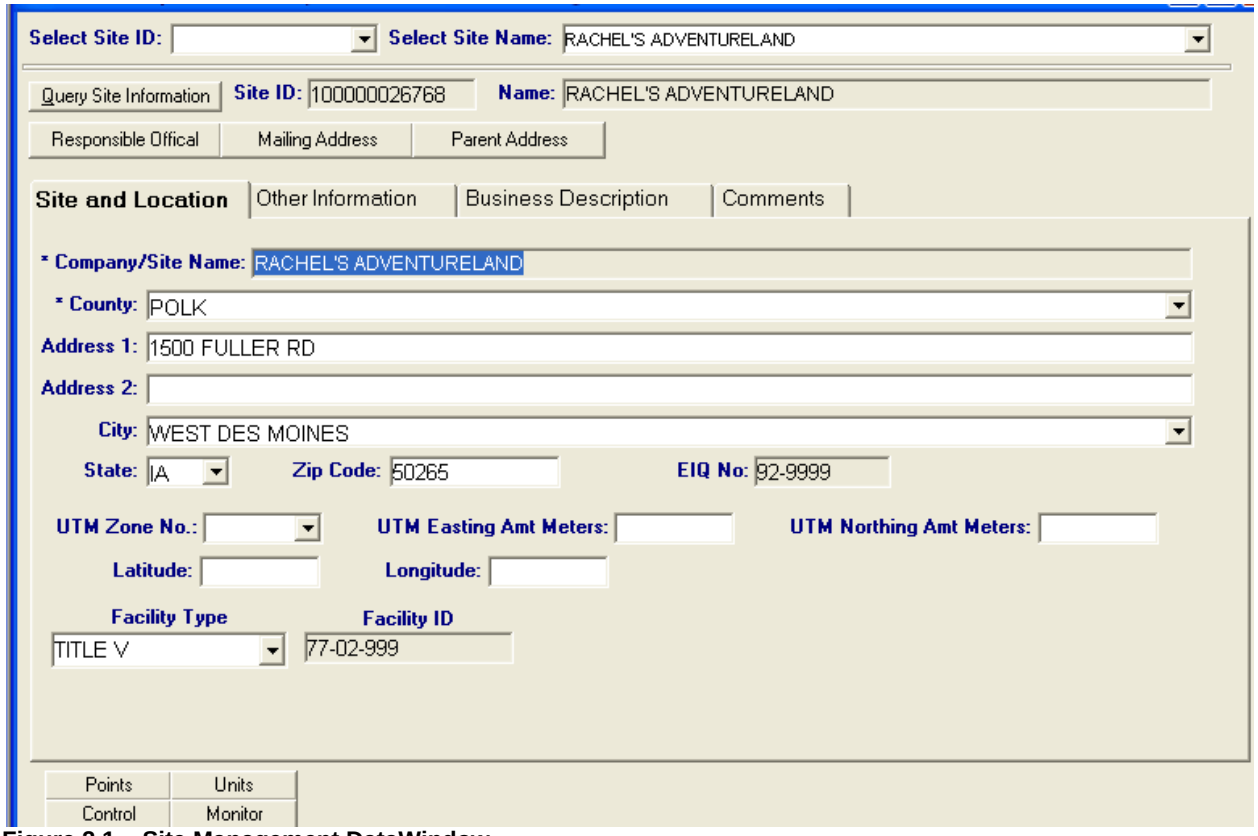


Figure 2.1 – Site Management DataWindow

2.1.2 Application Query Tool

The Application Query Tool DataWindow (see Figure 2.2) allows the user to access, view, create, edit, review, and delete[1] electronic applications and inventories. It also gives users the ability to submit these documents to the AQB when following the SPARS submittal process.

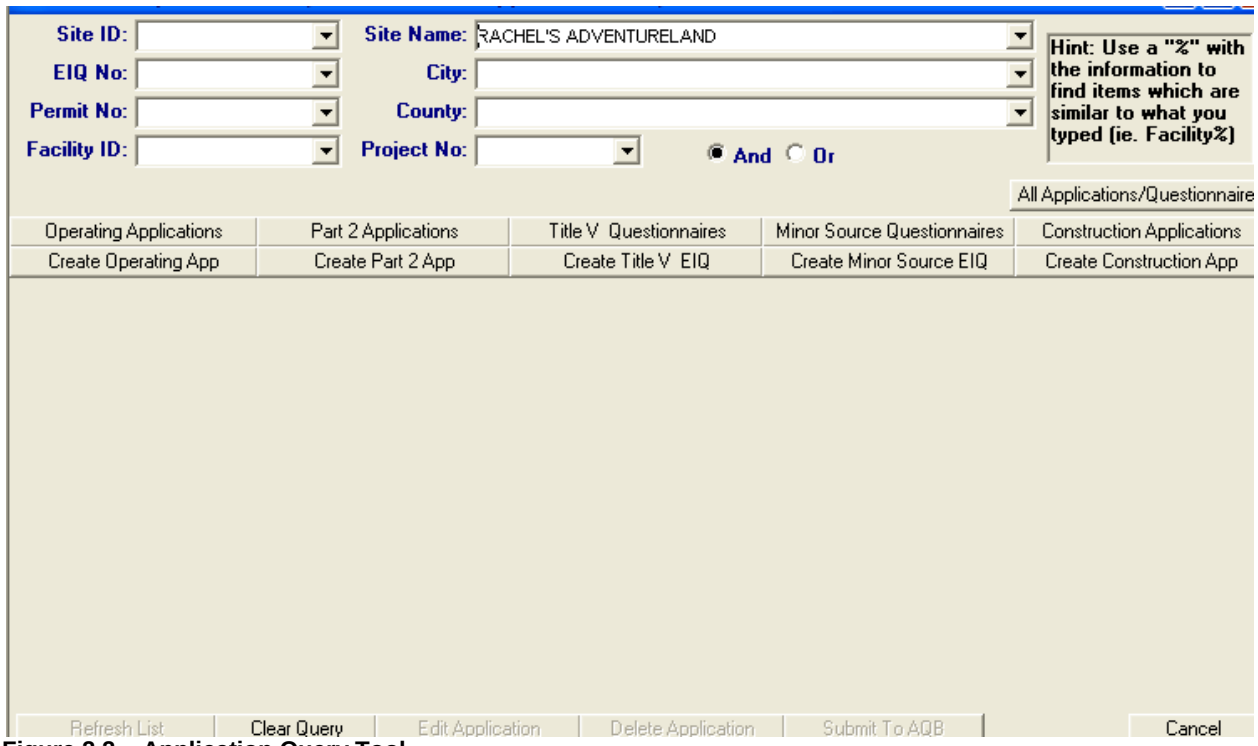


Figure 2.2 – Application Query Tool

[1] Only applications and inventories in the INDUSTRY Phase may be deleted.

Another useful SPARS DataWindow is the Report Interface (see Figure 2.3), which allows users the creation of several reports. One of these reports, "**Major Actual Emissions – List of Major Actual Emissions**," sums the actual emissions from a Title V facility's emissions inventory for the selected year.

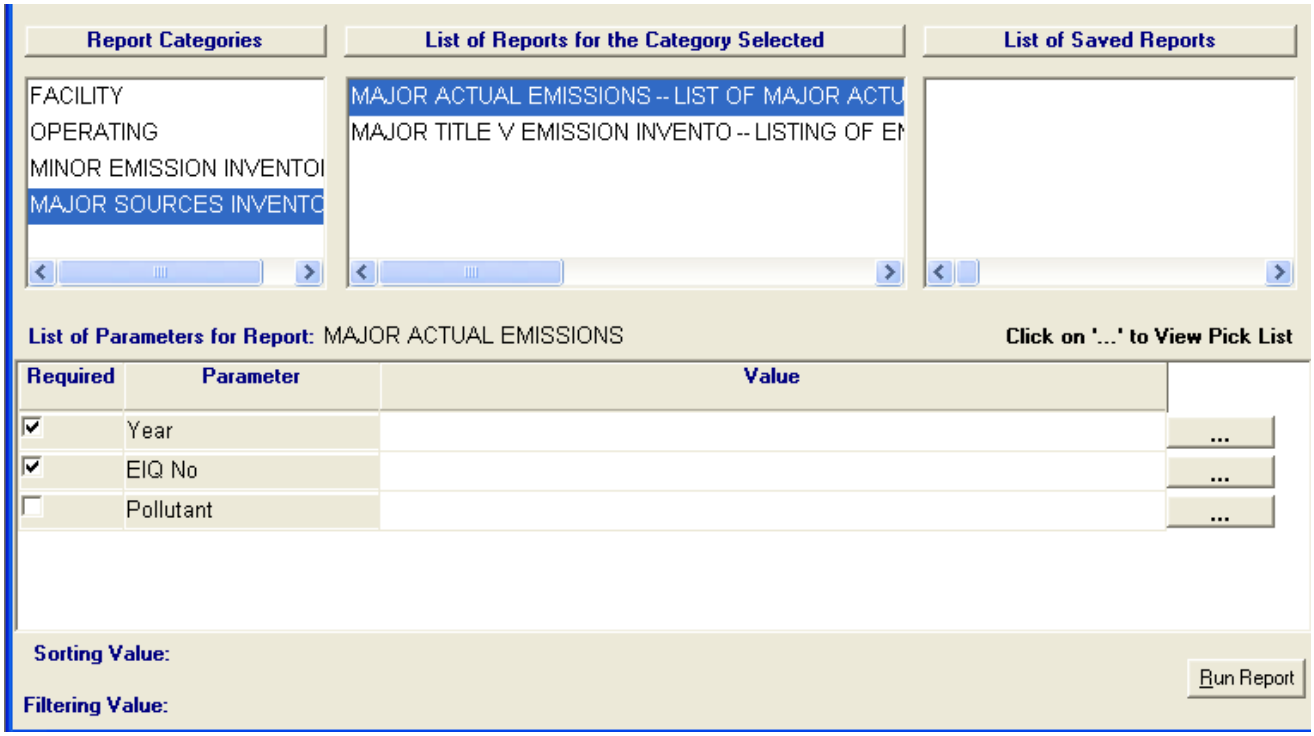


Figure 2.3 – Report Interface

2.2 What does SPARS Web do?

The State Permitting and Air Reporting System was first developed as a multi-user client/server database available only to AQB staff. The DNR also developed "SPARS Client" software to be downloaded to individual computers outside of AQB.

In February 2006, the Appeon system was used to deploy the PowerBuilder interface to the Web, thus making SPARS web-enabled. As a result of the SPARS web-enablement, the "SPARS Client" software is no longer available to be downloaded onto external customers' computers.

As a web-enabled database, SPARS Web allows facilities to:

1. Access permit applications and emissions data electronically.

2. Create the following:

- Construction permit applications
- Title V operating permit applications
- Minor Source emissions inventories, and
- Title V annual emissions inventories

3. Submit these applications and inventories to the AQB via the web.

4. Reuse existing electronic information to create new applications or modify current applications.

5. Attach supporting documentation in Excel, PDF, Word, TIF, JPG, DWG, or HTML formats.

6. Receive prompt confirmation that applications and inventories have been received by the AQB.

2.3 How does SPARS Web communicate with its users?

As you work with SPARS Web, you will find that sometimes the database will communicate with you through database errors or warning messages in response to what you have or have not done.

(1) **Database Errors**. There are several reasons why SPARS will send you database errors and there are several ways in which these errors will be displayed. Figures 2.4 and 2.5 illustrate two of these database errors.

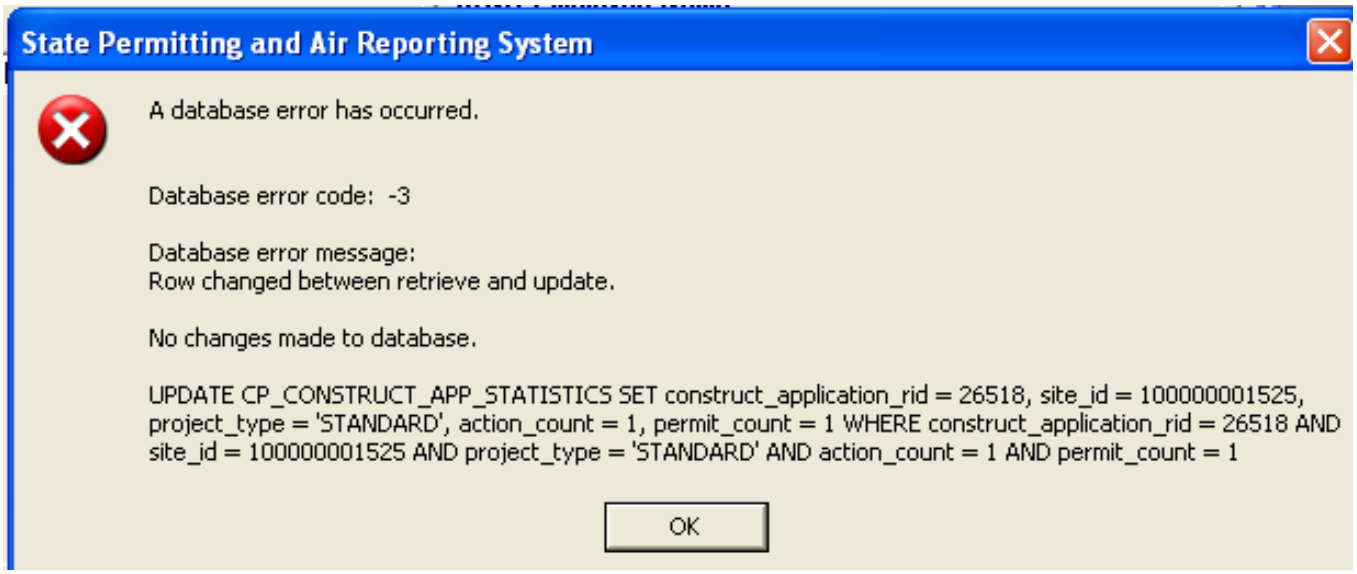


Figure 2.4 – Database Error Example 1

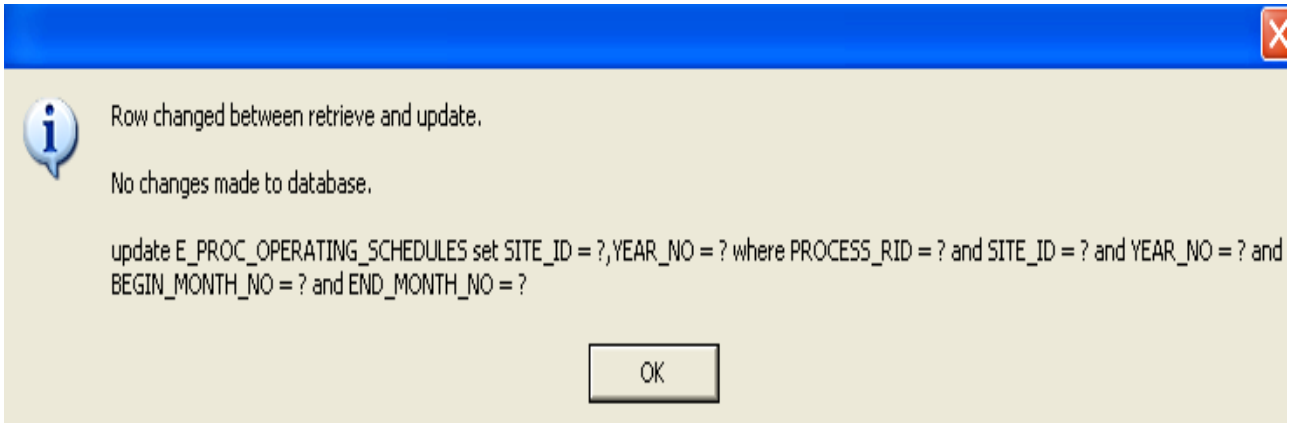


Figure 2.5 – Database Error Example 2

Database errors are considered "terminal" errors. In other words, every time that they occur, the connection to the SPARS database is automatically terminated. If you click the "OK" button on the error window, you will be placed in a loop, because you are no longer connected to SPARS Web.

At this point, the only course of action available to you is to use the Task Manager (see Figure 2.6) to get out of the loop and close the PowerBuilder interface. **NOTE**: In order to view the Task Manager window, press **Ctrl-Alt-Delete**.

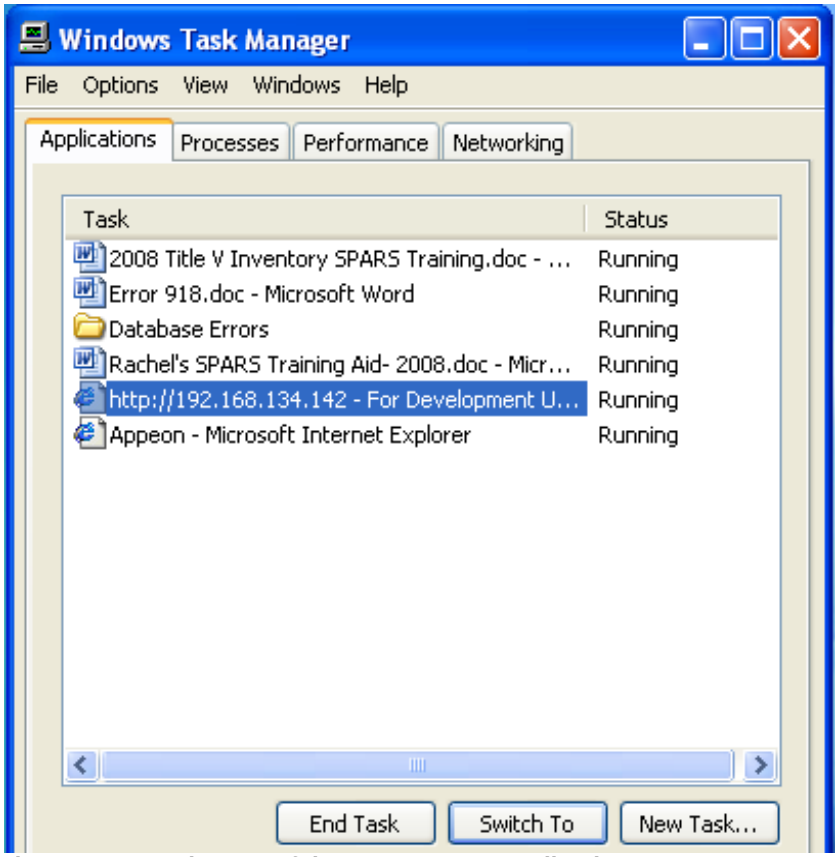


Figure 2.6 – Getting out of the SPARS never-ending loop

You can avoid receiving some of these database errors, but unfortunately, a few cannot be avoided. Out of the database errors that can be avoided, the most common one occurs when users try to access SPARS documents that have already been submitted to the DNR.

For instance, if you open and try to navigate through the last inventory that your facility submitted, you will get a database error and your connection to the database will be terminated. SPARS Web does this to avoid accidental changes to the data already submitted to the DNR. To stop this from happening, you ***must*** use the print-preview to view the information contained in any of your facility's SPARS documents that have been submitted to the DNR.[2]

In regards to database errors that cannot be avoided, the most common one occurs when users try to make changes to the information stored in SPARS for their facility contact, responsible official, or parent company contact. This error is a sign that the names associated with the facility must be cleaned up and consolidated.

To illustrate this issue, let us say that your facility contact name has been entered into the SPARS database using different formats: (1) with middle initial; (2) without middle initial; (3) with a title; and (4) without a title. This time, you tried to enter a different title for the same name, but SPARS did not allow you to. Instead, it sent you a database error and disconnected you from the database. SPARS Web did this to notify us (through you) that data maintenance is required to preserve the integrity of the database.

If and when you receive a database error while updating information regarding your facility contact, responsible official, or parent company contact, please let us know. We **must** maintain the database to ensure that the information stored in it continues to be reliable.

(2) **Warning Messages**. Again, there are several reasons why SPARS will send you warning messages and there are several ways in which these messages will be displayed. Figures 2.7 and 2.8 illustrate two of these warning messages.

Figure 2.7 –Warning Error Example 1

[2] To use the print-preview, open the Application Query Tool, query for your facility and for the document type (inventories, applications, etc) that you are interested in. Highlight the document and double-click. Click on the print-preview icon. The appropriate list of forms is now ready for viewing and printing.

Figure 2.8 –Warning Error Example 2

Unlike database errors, warning errors allow you to correct the problem and continue working without having to close SPARS Web (see Figure 2.9).

Figure 2.9 – After clicking "OK" SPARS Web allows you to correct the problem

In theory, all warning messages can be avoided. The key is to know what to do (or not to do) to avoid them.

One of the most common warning messages is: "*You are not authorized to perform this operation*." SPARS Web sends this message in Site Management when users:

1. Try to connect control equipment to a new emissions unit that has not yet been recognized by SPARS; or

2. Try to connect an emissions unit **or** control equipment to a new emission point that has not yet been recognized by SPARS.

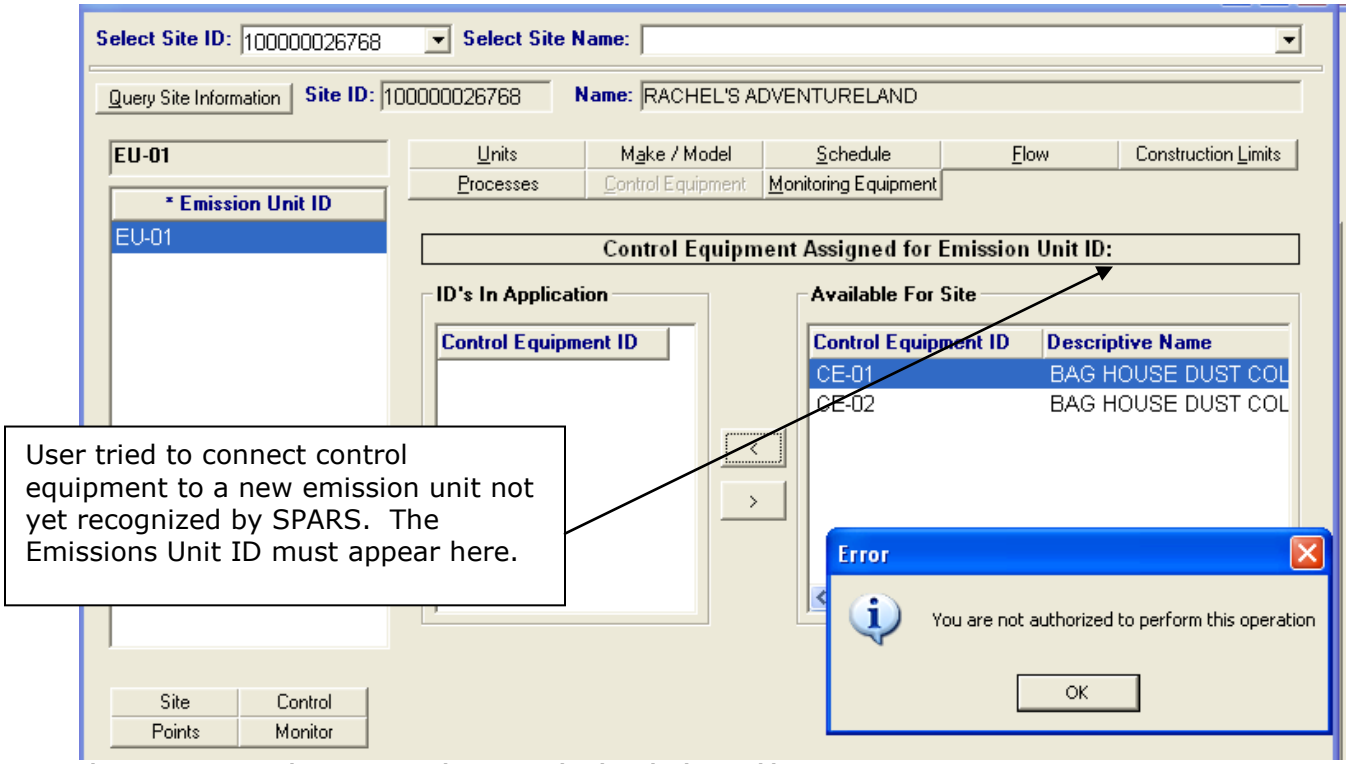


Figure 2.10 – Warning Message (Unrecognized Emission Unit)

Course of action in both cases:

1. Click **OK** on the warning message window.
2. Save any changes.
3. Close the Emission Unit DataWindow or the Emission Point Data Window.
4. Open the Emission Unit DataWindow or the Emission Point Data Window.
5. Make connection.

Another common warning message is: "*Duplicate record found*." The SPARS database does not allow duplicate information in certain fields. For instance, even though the description of emission points can be duplicated, the emission point ID, however, cannot.

The third warning message that users commonly receive is: "No parent record found." This message is received while working in the inventory, if the user tries to "write-in" a raw material that is not included in the SPARS pull-down list of raw materials.[3]

[3] If there is a raw material that you would like to see in the pull-down list, please contact us.

3.0 Accessing SPARS Web

3.1 Step One – Request Access

1. Identify a Facility Administrator and a Responsible Official. The Facility Administrator is responsible for managing SPARS access for those working on the facility's applications and inventories. The Responsible Official has the authority to submit applications and inventories to the AQB through SPARS. A Facility Administrator may also be the facility's Responsible Official.

2. Complete and submit both the *SPARS Access Request Form for Facility Administrators* and the *SPARS Access Request Form for Responsible Officials*. These forms are available at: http://www.iowadnr.gov/air/prof/SPARS/

Once these accounts are created, the AQB sends via certified mail the respective SPARS access information to each Facility Administrator and each Responsible Official. Facilities can then create, review, and submit applications and inventories to the AQB.

3.2 Step Two – Download the Appeon plug-in

1. Open Internet Explorer. Disable any anti-popup software installed in your computer. However, during the Appeon installation, be sure to choose "always accept popups from this site." This will allow you to see all the screens used in SPARS Web without first having to disable your anti-popup software.

2. Open the SPARS website: http://aq48.dnrag.state.ia.us/spars This link will direct you to the web page where the Appeon log in resides: http://aq41.dnrag.state.ia.us/spars.htm

3.3 Step Three – Log in

1. Use the Appeon log-in screen (see Figure 3.1) to enter the User Name and Password given to you by the AQB or by a Facility Administrator.

Figure 3.1 – Appeon Log-In Screen

2. After logging in, the SPARS Welcome Window opens. Close this window by clicking on the **X** on the top right. If you do not want this window to appear every time you open SPARS Web, unclick the **Show welcome at startup** box (see Figure 3.2).

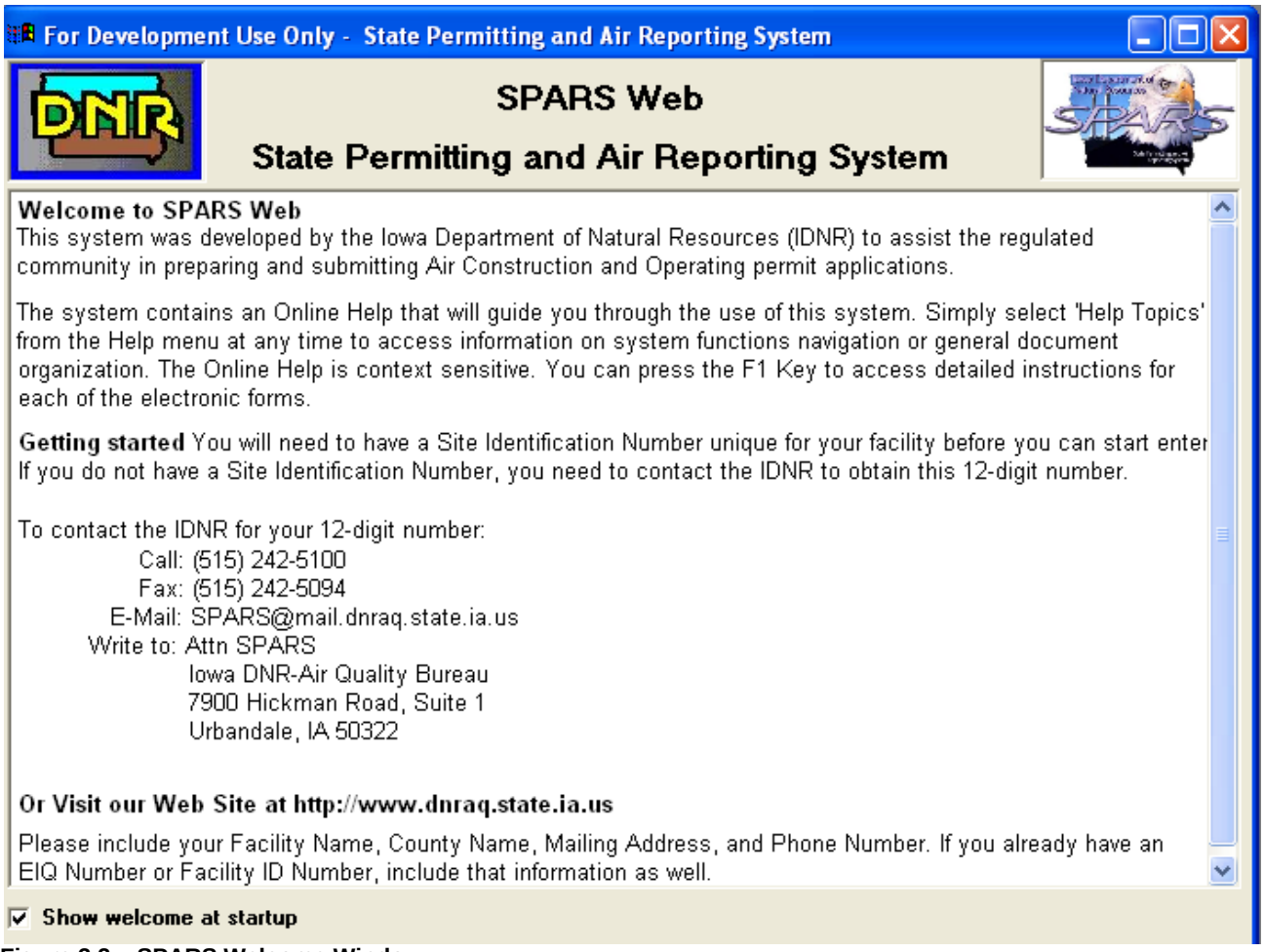


Figure 3.2 – SPARS Welcome Window

NOTE: Some of the information displayed on the SPARS Welcome Window is outdated. For instance, the following is no longer accurate:

"***Getting started*** *You will need to have a Site Identification Number unique for your facility before you can start entering data. If you do not have a Site Identification Number, you need to contact the IDNR to obtain this 12-digit number.*"

You do not need to request this number to get started, because you do not need to know this number to access your facility's information. This number will be accessible to you when you query for your facility in Site Management and in the Application Query Tool.

3. After closing the SPARS Welcome Window, you will only see the following menu:

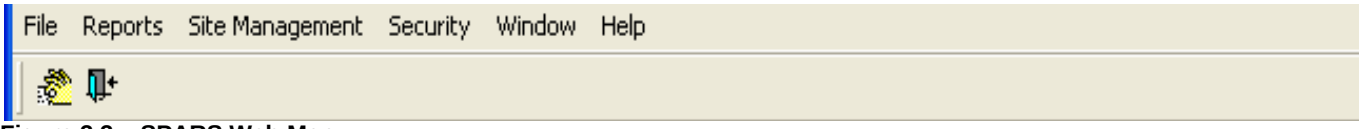


Figure 3.3 – SPARS Web Menu

4. You are now ready to work in SPARS Web.

3.4 Working in SPARS Web

3.4.1 SPARS Web Speed

Obviously, SPARS Web speed will not be the same at every facility. The following factors influence the speed at which SPARS Web will work:

- Connection type and speed (dial up, DSL, Cable, Network).
- Firewall and security protocols (blocking ports or IP addresses, scanning data packets, restricting data download/upload speeds, either by Facility, Corporate, or Internet Service Provider).
- Network issues including, but not limited to;
  - Traffic load at the Facility, ICN (state network), or IDNR
  - Routing of data between the Facility and Corporate headquarters in other states/regions and IDNR
- Client workstation setup for computer processor speed, amount of memory, cache size, programs running, virus scanning during use of SPARS application and other items which degrade computer performance.

Additionally, we have noticed that during most of the month of March, SPARS Web speed slows down even more, because most Title V users are working on their inventories. It would be best if you start working on your inventory well before March 31st to reduce some of the frustration caused by a slow SPARS Web connection.

3.4.2 SPARS Web Time-Out

A SPARS Web session is timed-out at 2 hours from its start, regardless of being active or inactive for the entire 2 hours.

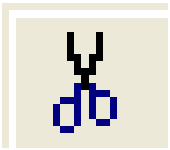
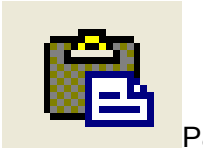
Even though SPARS Web saves your work automatically, certain updates and changes do not take place unless you save them manually. Therefore, try to save your work regularly to avoid losing information.

After being timed-out, you can log right back in to SPARS Web.

3.4.3 Copying, Cutting, and Pasting Information

In most of the areas of SPARS Web that you will be working in, the traditional mouse right-click will not work when trying to copy (or cut) and paste.

You can use the cut, copy, and paste icons in SPARS Web:

 Cut  Copy  Paste

Alternatively, you can do the following:

1. Highlight the text that you need to copy, cut, or paste.
2. Press “Ctrl C” to copy
3. Press “Ctrl X” to cut
4. Press “Ctrl V” to paste

4.0 Setting-up Your Computer to Run SPARS Web

Before running the SPARS Web application, please make sure that your computer system meets the following ***minimum*** hardware and software requirements:

◊ ***CPU***: Pentium-class processor – 1 GHz or faster

◊ ***Memory***: 128 MB

◊ ***Disk***: 10 GB

◊ ***Network***: 56k dial-up connection to Internet

◊ ***Operating System***[4]:
- Windows 2000, or
- Windows XP (any edition), or
- Windows Server 2003 (any edition), or
- Windows Vista (any edition), or
- Windows Server 2008

◊ ***Software***:
- Microsoft Internet Explorer 6.0 SP1 or SP2, or
- Internet Explorer 7.0, or
- Internet Explorer 8.0,
- Sybase Appeon Xcelerator (automatically downloaded to the client browser when running SPARS Web)

For the best possible experience working with SPARS Web, the Iowa DNR's AQB recommends the following hardware and software for your computer system:

◊ ***CPU***: Pentium-class processor – 1.8 GHz or faster

◊ ***Memory***: 512 MB

◊ ***Disk***: 20 GB

◊ ***Network***: Broadband connection to Internet

◊ ***Operating System***:
- Windows 2000, or
- Windows XP (any edition), or
- Windows Server 2003 (any edition), or
- Windows Vista (any edition), or
- Windows Server 2008

◊ ***Software***:
- Microsoft Internet Explorer 6.0 SP1 or SP2, or
- Internet Explorer 7.0, or
- Internet Explorer 8.0,

[4] Currently, Appeon is not comparable with Windows 7.

- Sybase Appeon Xcelerator (automatically downloaded to the client browser when running SPARS Web),
- Adobe Acrobat Reader 6.0 or later (for viewing printed PDF DataWindows and reports)

When you run an Appeon Web application, such as SPARS Web, for the first time, the Appeon Xcelerator plug-in must be downloaded to your computer. However, if you do not have administrator rights to your computer Windows system, the *Xcelerator plug-in download will be blocked and the application will fail to run*.

To avoid this and to allow SPARS Web to run in your computer, please follow the instructions described in this document.

Ask your administrator to assign the current login account to the Administrators group, so that it can successfully download and register the Xcelerator plug-in. In the case of Windows Vista and Windows Server 2008 users, you need to turn off the **User Account Control** feature, for the Appeon Server to start correctly. (See instructions below)

Please

4.1 Set account privilege for running Appeon Server

4.1.1 Windows System other than Windows Vista or Windows Server 2008

- Ask your administrator to assign the current logging account to the Administrator group. This will allow the Xcelerator plug-in to be successfully downloaded and registered.

4.1.2 Windows Vista or Windows Server 2008

- Go to Control Panel **|** User Accounts, click ***Turn User Account Control on or off***.
- De-select the option of ***Use User Account Control (UAC) to help protect your computer***.
- Click **OK**.
- Restart your computer

4.2 Adjust Desktop Display Settings

Your desktop display should be set to ***1024 X 768***.

If your display is not set to *1024 X 768*, follow these instructions:

1. Right-click inside the Windows desktop and select **Properties**.
2. Select the **Settings** tab.
3. Note your current Screen resolution in case you need to reset it later.
4. More the Screen resolution slide bar to *1024 X 768*.
5. Click **Apply**. The screen will be reset.
6. Click **Yes**.
7. Click **OK**.

4.3 Adjust Temporary Internet Files and Caching

- **Delete all temporary files stored in the Internet Explorer cache:**

  1. Open Internet Explorer.
  2. Select **Internet Options** on the **Tools** menu.
  3. Select the **General** tab.
  4. Depending on the Internet Explorer that you have, do the following:

     - Internet Explorer 6.0:
       - Click **Delete Files…** in the **Temporary Internet Files** section.
     - Internet Explorer 7.0:
       - Click **Delete…** in the **Browsing History** section.
       - Click **Delete Files…** in the **Temporary Internet Files** section.
     - Internet Explorer 8.0:
       - Click **Delete…** in the **Browsing History** section.
       - Click **Delete**.

  5. Click **OK**.

- **Verify settings for temporary internet files within Internet Explorer and set up file caching:**

  1. Open Internet Explorer.
  2. Select **Internet Options** on the **Tools** menu.
  3. Select the **Advanced** tab. Scroll down to the Security section and make sure that **Empty Temporary Internet Files folder when browser is closed** option is **NOT** checked.
  4. Select the **General** tab.
  5. Depending on the Internet Explorer version that you have, do the following:

     - *Internet Explorer 6.0*:
       - Click **Settings…** in the **Temporary Internet Files** section.
       - Select the **Automatically** button to check for newer versions of stored pages.

     - *Internet Explorer 7.0 and 8.0*:
       - Click **Settings…** in the **Browsing History** section.
       - Select the **Automatically** button to check for newer versions of stored pages.

  6. Verify that the **Amount of Disk Space to Use** is set to no less than 200MB.

  7. Click **OK**.

4.4 If Running SPARS Web via a Proxy Server

If you are running SPARS Web through a Proxy Server, you must ensure that the Advanced Setting **HTTP 1.1 through proxy connections** remains enabled.

NOTE: These instructions are only necessary if a Proxy Server is used.

1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Advanced** tab.
4. Scroll down to the **HTTP 1.1 Settings** section.
5. Select **Use HTTP 1.1** if it is not currently selected.
6. Select **Use HTTP 1.1 through proxy connections** if it is not currently selected.
7. Click **Apply** and then **OK**.

4.5 Adjust Internet Security Settings

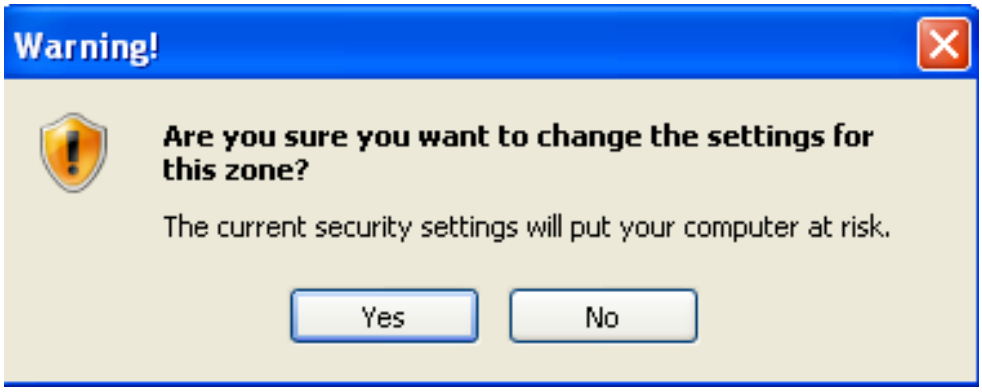
In order for SPARS Web to be set up on your machine, you must make sure that your internet security is set correctly. SPARS Web uses a version of *Appeon* (5.0 Xcelerator) and other functions that require specific security settings.

1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Select the **Internet** zone.
5. Click **Custom Level…** at the bottom of the box.
6. The following settings must be in place to set up SPARS Web. Your computer might already have these selections in place, depending on the security level that you have set. Additionally, these options may or may not be available to you depending on the Internet Explorer version or Service Pack that you have:
    - Download signed ActiveX controls – select **Enable**.
    - Download unsigned ActiveX controls – select **Prompt**.
    - Initialize and script ActiveX controls not marked as safe for scripting – select **Prompt**.
    - Run ActiveX controls and plug-ins – select **Enable**.
    - Script ActiveX controls marked safe for scripting – select **Enable**.
    - File download – select **Enable**.
    - Active scripting – select **Enable**.

    - *Internet Explorer 6.0*:
        - Allow paste operations via script – select **Enable**.
        - Allow active content to run in files on My Computer – select **Enable**.
    - *Internet Explorer 7.0 and 8.0*:
        - Allow websites to prompt for information using scripted windows – select **Enable**.

7. Click **OK** when the new security settings have been selected.

NOTE: After clicking **OK**, the following warning might appear:



Click **Yes**. You will re-adjust these settings immediately after Appeon is installed in your computer.

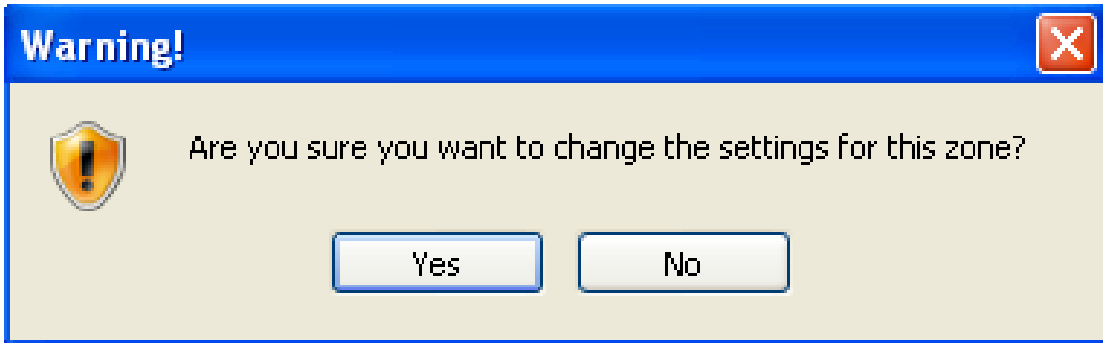
8. Click **OK**.

4.6 Adjust Trusted Sites Security Settings

You must make sure that your "trusted sites" security is set correctly. SPARS Web uses a version of *Appeon* (5.0 Xcelerator) and other functions that require specific "trusted sites" security settings.

1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Select the **Trusted Sites** zone.
5. Click **Custom Level…** at the bottom of the box.
6. If available, make sure that the following settings are selected. Your computer might already have these selections in place, depending on the security level that you have set. Additionally, these options may or may not be available to you depending on the Internet Explorer version or Service Pack that you have:
    - Download signed ActiveX controls – select **Enable**.
    - Download unsigned ActiveX controls – select **Prompt**.
    - Initialize and script ActiveX controls not marked as safe for scripting – select **Prompt**.
    - Run ActiveX controls and plug-ins – select **Enable**.
    - Script ActiveX controls marked safe for scripting – select **Enable**.
    - File download – select **Enable**.
    - Active scripting – select **Enable**.
    - *Internet Explorer 6.0*:
        - Allow paste operations via script – select **Enable**.
        - Allow active content to run in files on My Computer – select **Enable**.
    - *Internet Explorer 7.0 and 8.0*:
        - Allow websites to prompt for information using scripted windows – select **Enable**.
7. Click **OK** when the new security settings have been selected.

NOTE: After clicking **OK**, the following warning might appear:



Click **Yes**. You will re-adjust these settings immediately after Appeon is installed in your computer.

8. Click **OK**.

4.7 Adjust Additional Trusted Sites Settings

1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Zone area, select the **Trusted Sites** zone.
5. Click the **Sites** button.
6. Make sure that **Require server verification (https) for all sites in this zone** is not checked. Uncheck this field if necessary.
7. Add the following web addresses to your Websites box:

    - http://*.aq41.dnrag.state.ia.us
    - http://aq41.dnrag.state.ia.us
    - http://aq48.dnrag.state.ia.us/spars

8. To add these web addresses, do the following (one web address at a time).

    - Type the web address in **Add this website to the zone** field.
    - Click the **Add** button.

9. When all the web addresses have added, click the **Close** button.

10. Click **OK**.

4.8 Check Version of Jscript.dll

You must make sure that the version of *jscript.dll* on your PC is the correct version.

1. In Windows Explorer open the *\WINNT\system 32* folder.
2. Scroll down and locate the *jscript.dll* file.
3. Right-click on this file name and select **Properties**.
4. Select the **Version** tab. The version must be at least *5.6.x.xxxx*. If the version number is older than *5.6.x.xxxx* (a smaller number), download the newer version at:

   http://www.microsoft.com/downloads/details.aspx?FamilyID=c717d943-7e4b-4622-86eb-95a22b832caa&DisplayLang=en

4.9 Disable Internet Anti-popup/Anti-Virus Software

In order to have *Appeon* correctly installed in your computer, anti-popup software must be disabled. After installation, the anti-popup software can be enabled. Additionally, it is recommended that your anti-virus software be temporarily disabled until you have completed the SPARS installation. Once you have completed the installation, the anti-virus software may be enabled.

4.10 Install *Appeon*

1. Open Internet Explorer.
2. On the web browser, type this address: http://aq48.dnraq.state.ia.us/spars
3. If the download does not automatically start, you should be directed to a page to manually install the application. You may need administrator rights on your computer to install the Java applet needed to connect you to SPARS Web.
4. If prompted, choose the following:
   - Install ActiveX
   - Trust this site
   - Always allow popups from this site
5. When the installation is complete, close Internet Explorer.

4.11 Re-adjust Internet Security Settings

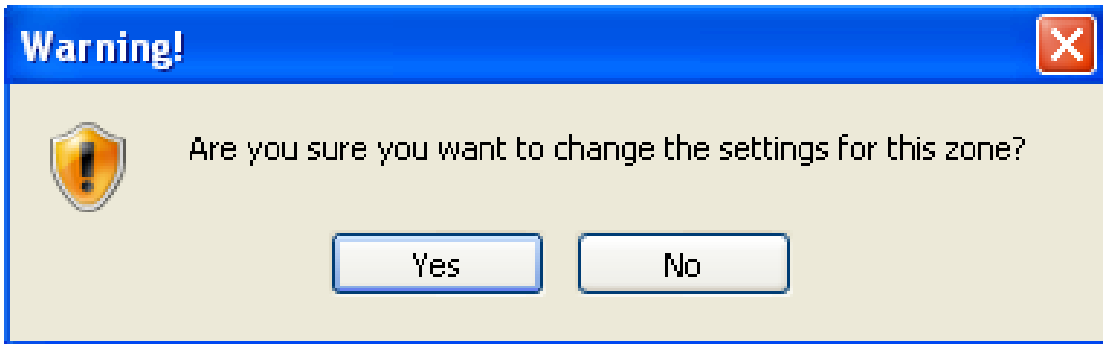
1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Select **Internet**.
5. Click **Custom Level…** at the bottom of the box.
6. Make the following security setting selections:
   - Download signed ActiveX controls – select **Prompt**.
   - Download unsigned ActiveX controls – select **Disable**.
   - Initialize and script ActiveX controls not marked as safe for scripting– select **Disable**.
   - Run ActiveX controls and plug-ins – select **Enable**.
   - Script ActiveX controls marked safe for scripting – select **Enable**.
   - File download – select **Enable**.

- Active scripting – select **Enable**.

- *Internet Explorer 6.0*:
  - Allow paste operations via script – select **Enable**.
  - Allow active content to run in files on My Computer – select **Enable**.
- *Internet Explorer 7.0 and 8.0*:
  - Allow websites to prompt for information using scripted windows – select **Enable**.

7. Click **OK** when the new security settings have been selected.

NOTE: After clicking **OK**, the following warning might appear:



Click **Yes**. You will re-adjust these settings immediately after Appeon is installed in your computer.

8. Click **OK**.

4.12 Re-adjust Trusted Site Security Settings

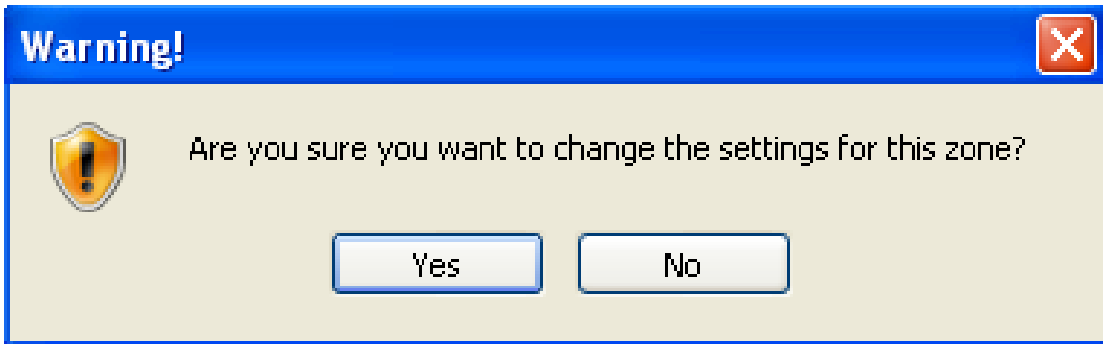
1. Open Internet Explorer.
2. Select **Internet Options** on the **Tools** menu.
3. Select the **Security** tab.
4. Select the **Trusted Sites** zone.
5. Click **Custom Level…** at the bottom of the box.
6. Make the following security setting selections:
   - Download signed ActiveX controls – select **Prompt**.
   - Download unsigned ActiveX controls – select **Disable**.
   - Initialize and script ActiveX controls not marked as safe for scripting – select **Disable**.
   - Run ActiveX controls and plug-ins – select **Enable**.
   - Script ActiveX controls marked safe for scripting – select **Enable**.
   - File download – select **Enable**.
   - Active scripting – select **Enable**.

   - *Internet Explorer 6.0*:
     - Allow paste operations via script – select **Enable**.
     - Allow active content to run in files on My Computer – select **Enable**.
   - *Internet Explorer 7.0 and 8.0*:

- Allow websites to prompt for information using scripted windows – select **Enable**.

7. Click **OK** when the new security settings have been selected.

NOTE: After clicking **OK**, the following warning might appear:



Click **Yes**. You will re-adjust these settings immediately after Appeon is installed in your computer.

8. Click **OK**.

9. Close Internet Explorer.

4.13 Create a SPARS Web shortcut

Creating a SPARS Web shortcut using the correct URL will ensure your access to the *Appeon* logging screen regardless of any SPARS upgrades installed by the DNR.

1. Right-click inside the Windows desktop and select **New**.
2. Select **Shorcut**.
3. Inside the text box, type the following location: http://aq48.dnrag.state.ia.us/spars
4. Click **Next**.
5. Inside the text box, type: **SPARS Web**
6. Click **Finish**
7. Next time you need to access SPARS Web, place your cursor on this shortcut and double-click the left side of your mouse.

Uninstalling Appeon

To uninstall Appeon:

1. Access your hard drive to find the file named “EonUISpace Class.” This file is commonly found in *C:\WINDOWS|Downloaded Program Files*.

2. Delete the EonUISpace Class file.

Once this file is deleted, you will no longer be able to access SPARS Web. To access SPARS Web, Appeon must be re-installed as instructed in this doc

5.0 Querying in Site Management

As mentioned before, Site Management is where information regarding your site, emission points, emissions units, control equipment, and monitoring equipment is kept. You may query for your facility's Site Management information as follows:

5.1 Querying for site information:

1. From the **Site Management** menu, select Sites.

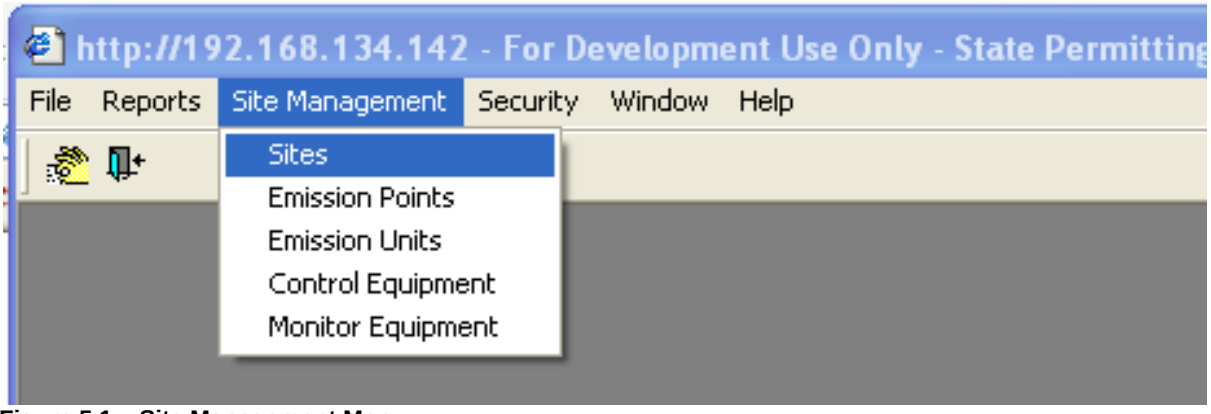


Figure 5.1 – Site Management Menu

2. Select one of your sites by using the **Select Site Name** pull down list **OR** by using the **Select Site ID** pull down list. The number of sites included in your pull-down list will depend on which sites you have been given access to by AQB or your Facility Administrator.

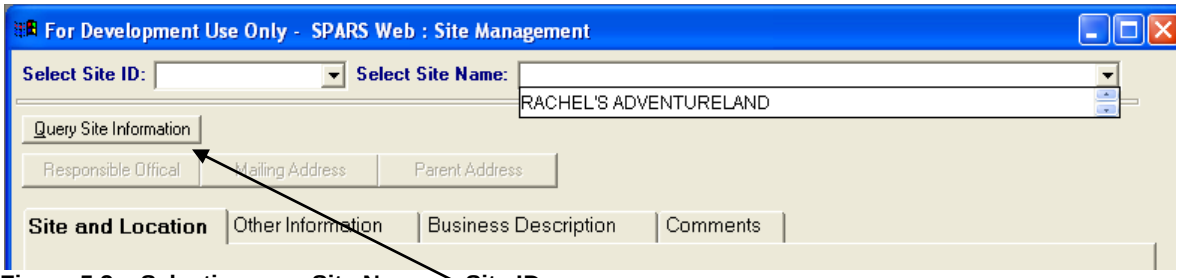


Figure 5.2 – Selecting your Site Name or Site ID

3. Once the site has been selected, click the **Query Site Information** button to display the site information as shown in Figure 5.3.

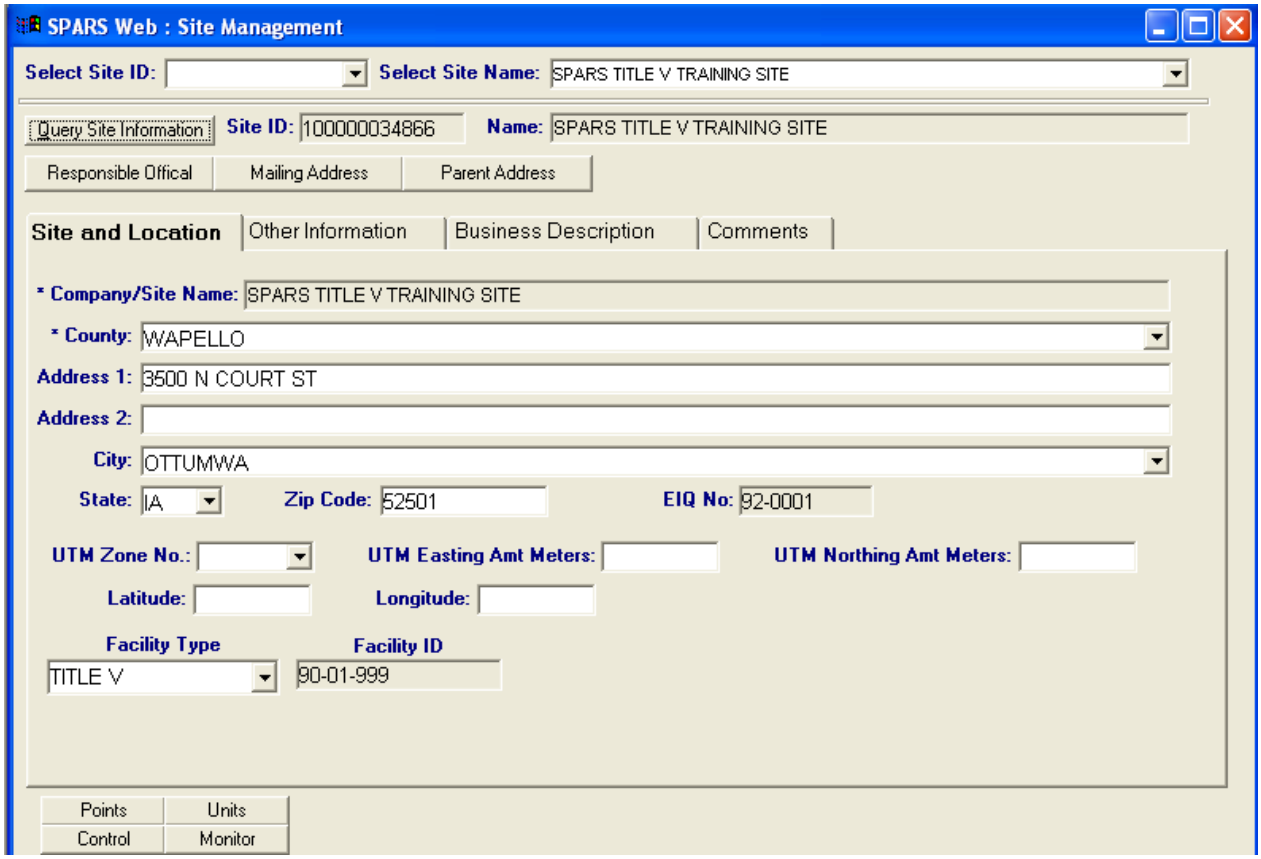


Figure 5.3 –Site DataWindow

5.2 Querying for emission points, emissions units, control equipment, or monitoring equipment:

There are two ways to query for information regarding emission points, emissions units, control equipment, or monitoring equipment.

One way…

1. From the **Site Management** menu, select **Emission Points**, or **Emission Units**, or **Control Equipment**, or **Monitoring Equipment**.

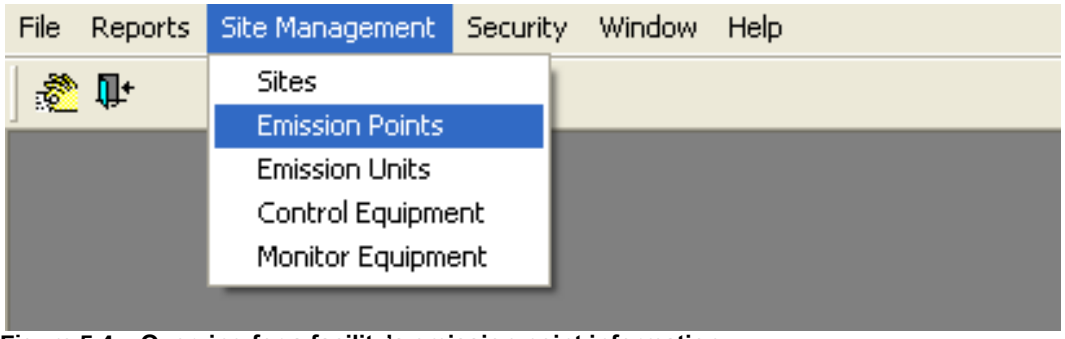


Figure 5.4 – Querying for a facility's emission point information

2. Select one of your sites by using the **Select Site Name** pull down list **OR** by using the **Select Site ID** pull down list.

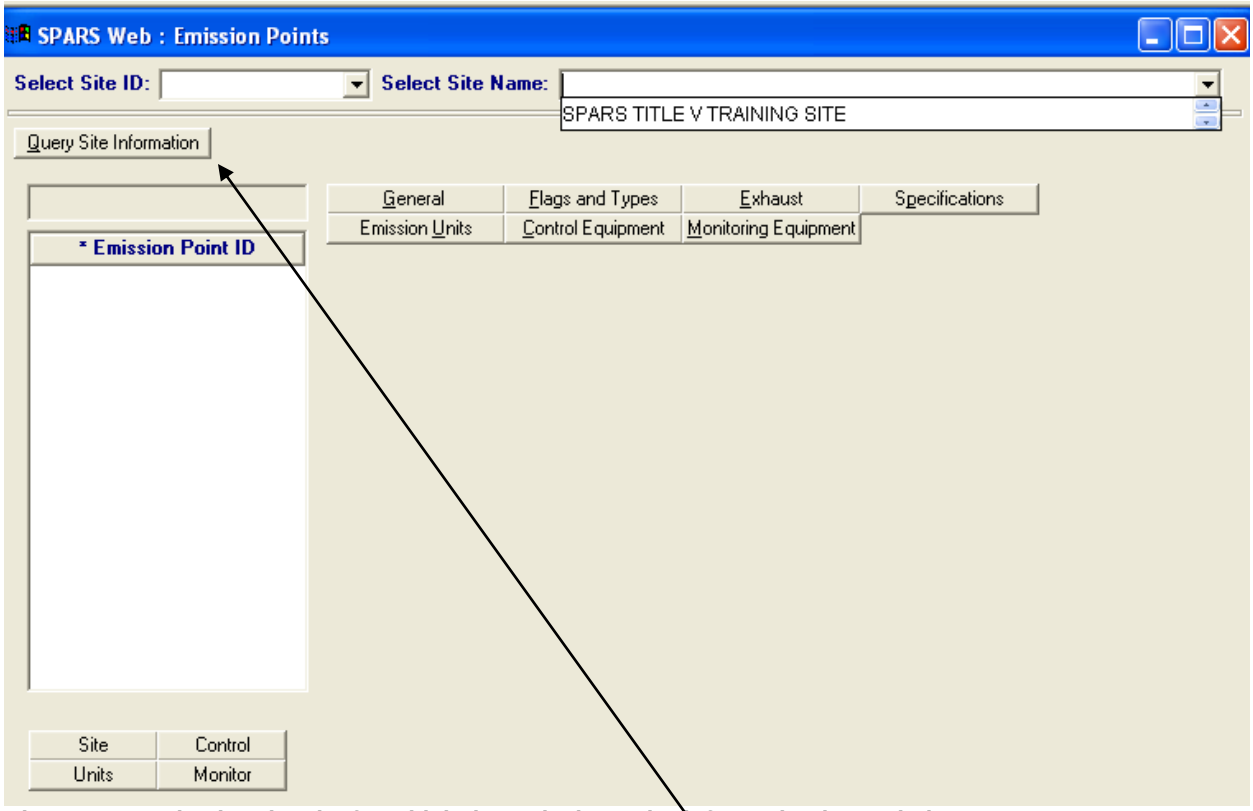


Figure 5.5 – Selecting the site for which the emission point information is needed.

3. Once the site has been selected, click the **Query Site Information** button to display the emission point as shown in Figure 5.6.

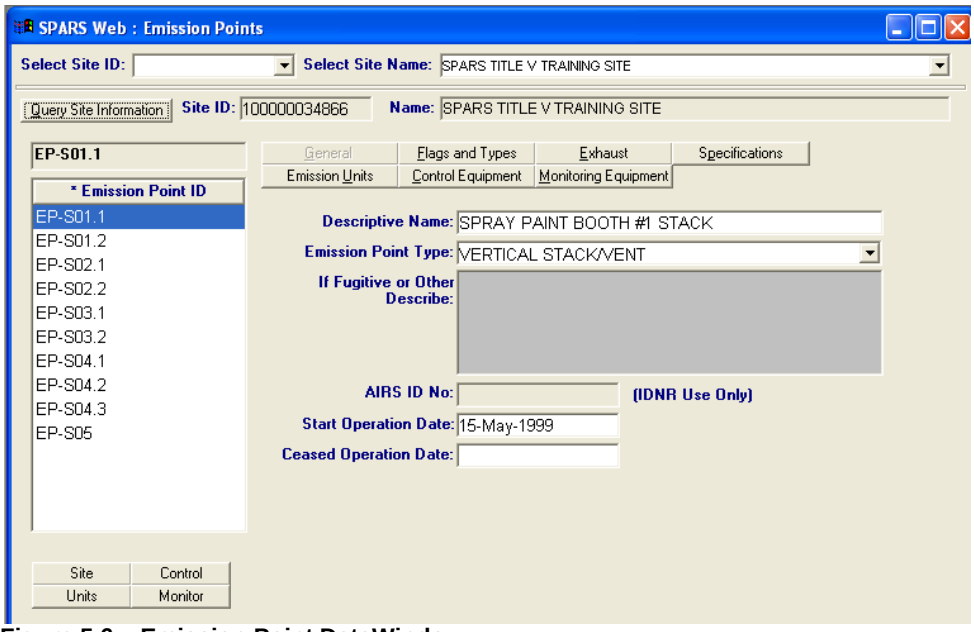


Figure 5.6 – Emission Point DataWindow

The other way…

1. From the **Site Management** menu, select Sites.

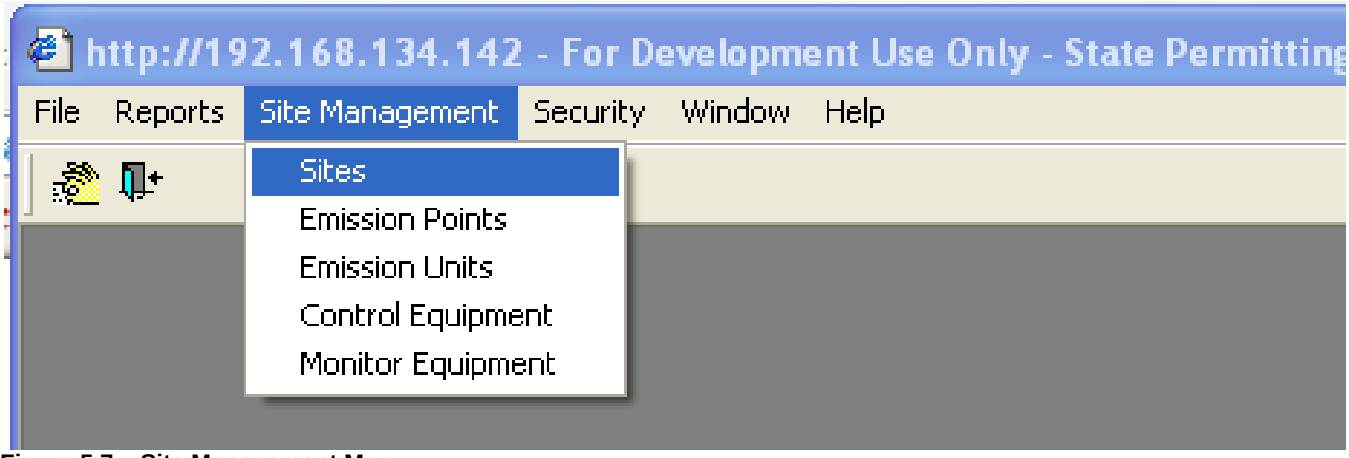


Figure 5.7 – Site Management Menu

2. Select one of your sites by using the **Select Site Name** pull down list **OR** by using the **Select Site ID** pull down list. The number of sites included in your pull-down list will depend on which sites you have been given access to by AQB or your Facility Administrator.

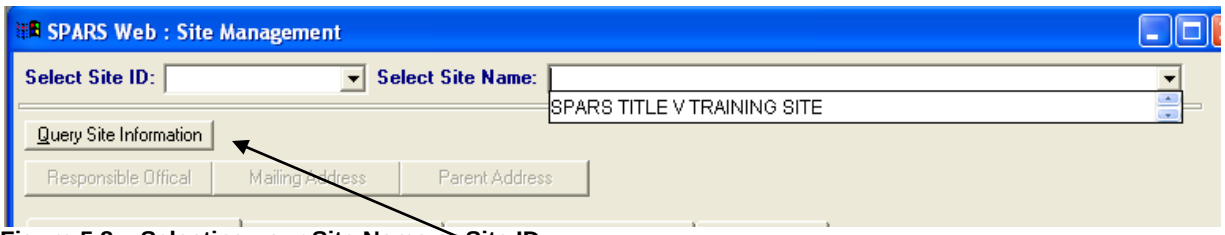


Figure 5.8 – Selecting your Site Name or Site ID

3. Once the site has been selected, click the **Query Site Information** button to display the site information as shown in Figure 5.9.

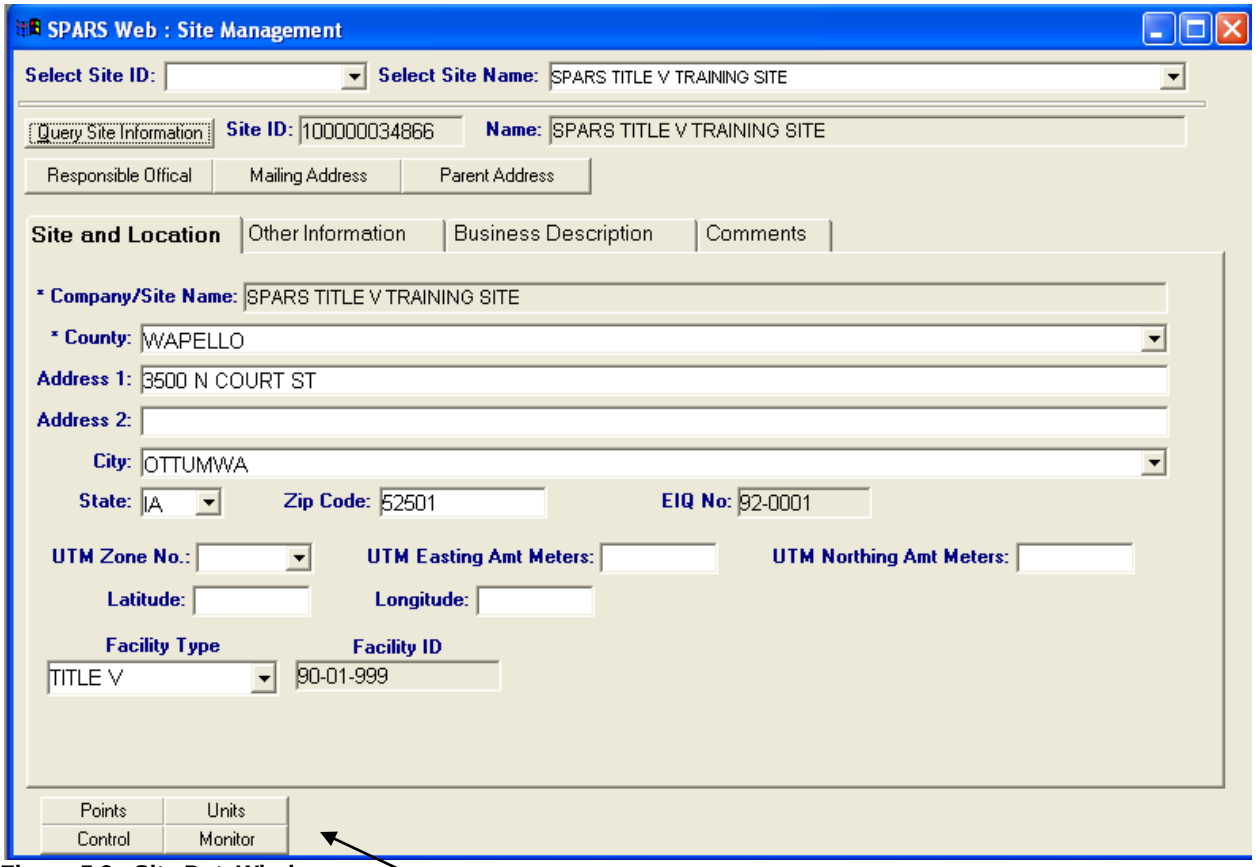


Figure 5.9 –Site DataWindow

4. Click on any of the four buttons in the lower left corner of the Site Management DataWindow. These buttons allow access to information about the facility's emission points, emissions units, control equipment, and monitoring equipment.

6.0 Updating your Facility's Site Management Information

Please make sure that you update your site information prior to creating your Title V emissions inventory. Please call us if you need help with this.

Updating the data in Site Management includes:

- Correcting or adding information such as business description, SIC code, NAICS code, facility classification, number of employees, responsible official contact information, mailing address, and/or parent company address. **Do not make any changes to the information displayed on the Site and Location tab (see Figure 5.9). If changes are needed to the information included under this tab, please contact the AQB, since this information affects other AQB/DNR databases**.

- Adding emission points, emissions units, control equipment, and/or monitoring equipment which started operation since the previous minor source inventory submittal.

- Correcting existing information regarding any of your emission points, emissions units, control equipment, and/or monitoring equipment.

- Modifying information for any of your existing emission points, emissions units, control equipment, and/or monitoring equipment, based on most recent construction permits.

- Entering the "Cease Operation Date" for all emission points, emissions units, control equipment, or monitoring equipment no longer operating at your facility.

- Disconnecting all emission points, emissions unit, control equipment, or monitoring equipment no longer operating at your facility.

When creating or updating emission points, emissions units, control equipment, or monitoring equipment, follow this order: (1) monitoring equipment, (2) control equipment, (3) emissions unit, and (4) emissions point.

IMPORTANT:

*Site Management keeps an inventory of past and present units, points, control equipment, and monitoring equipment. Deleting or modifying these, will affect previously submitted applications and inventories. Therefore, **never** delete these from Site Management, even when one or more of them are no longer in operation at your facility. Instead, enter a cease operation date in the appropriate Site Management fields. If the equipment ID needs to be modified, please contact us.*

6.1 Updating Site Information:

1. Query the site information for the site that you will be working on (see Section 5.0).

2. Update the **Other Information** tab if needed.

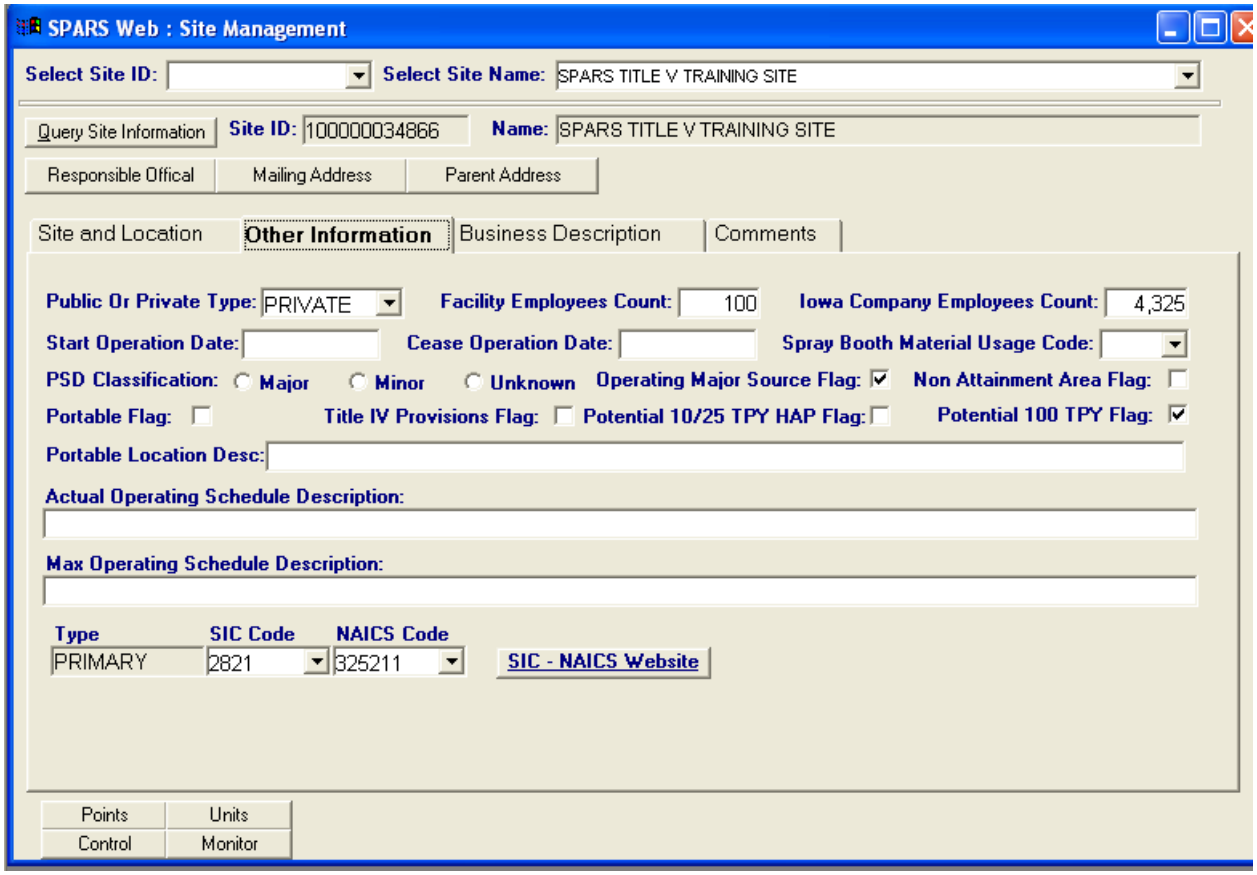


Figure 6.1 – "Other Information" Tab

3. Under the **Other Information** tab, you may add or delete a Secondary and Tertiary SIC code and/or NAICS code. To do this, right-click underneath the field that says "PRIMARY" and choose "Add" or "Delete."

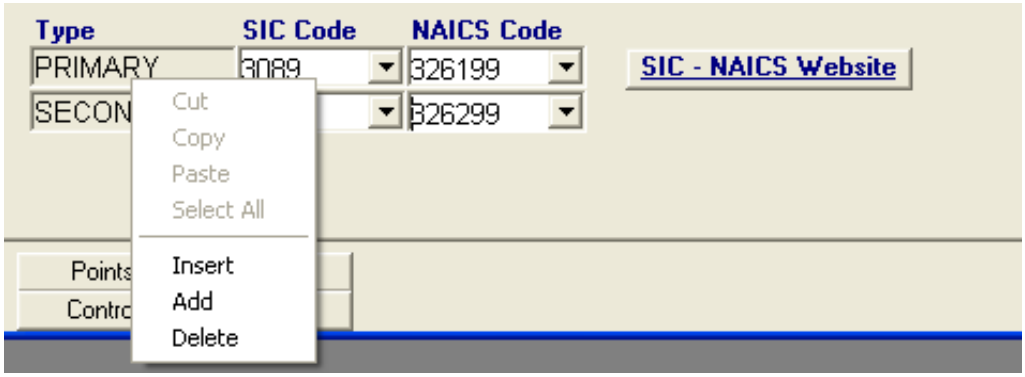


Figure 6.2 – Adding or deleting SIC or NAICS codes

4. Update the **Business Description** and the **Comments** tabs if needed.

5. Update the **Responsible Official**, the **Mailing Address**, and/or **Parent Address** tabs if needed:

- Click the appropriate button: **Responsible Official**, **Mailing Address,** or **Parent Address**.

- A window opens. Enter the address information. If the address information is the same as the location address, click the button at the bottom of the window to copy the location address.

- Click the **X** on the top right corner. A box opens asking: "Do you want to save changes?" Click "**Yes**" to save changes and close window; or click "**No**" to close window without saving changes; or click "**Cancel**" to keep the window open to make any additional changes or corrections.

6.2 Updating Monitoring Equipment Information:

1. Click the Monitor Equipment button in the lower left corner of the Site Management DataWindow. The **Monitor Equipment** DataWindow appears with the **Equipment** button information displayed.

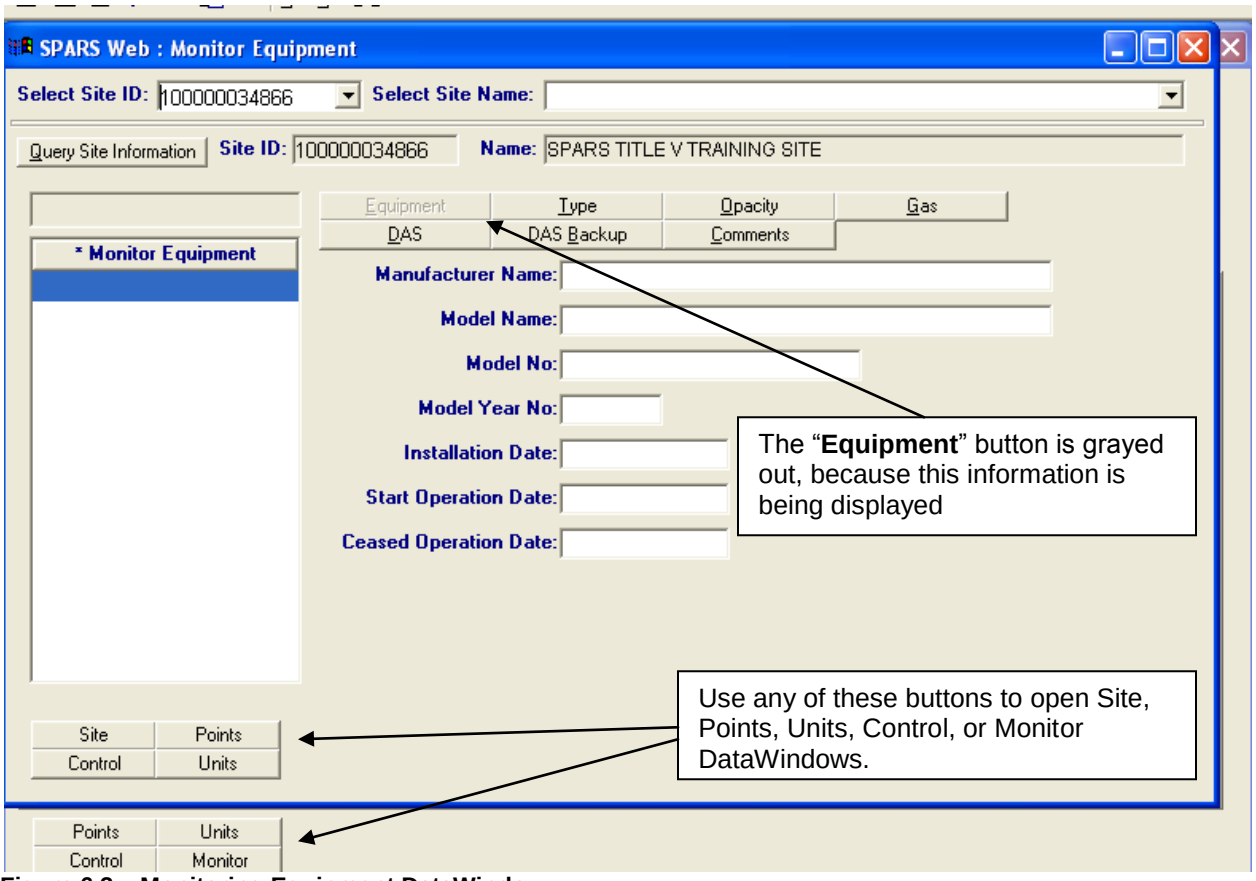


Figure 6.3 – Monitoring Equipment DataWindow

2. Review existing information and make any necessary changes. Additional information regarding monitoring equipment may be found by clicking the buttons displayed on the right side of the Monitoring Equipment DataWindow (**Type**, **Opacity**, **Gas**, **DAS**, **DAS Backup**, or **Comments**).

3. Save the monitoring equipment that you updated by clicking on the Save button on the toolbar.

4. If the monitoring equipment no longer operates at the facility, enter the "Ceased Operation Date" under the **Equipment** button. In addition, make sure to disconnect the monitoring equipment from all appropriate control equipment, emissions units, and emission points.

5. If new monitoring equipment has been installed at your facility, right-click inside the **Monitor Equipment** box and select add. Type-in the new ID in the **Monitor Equipment** box.

6. Save the monitor equipment that you created by clicking the Save button on the toolbar.

7. Fill-in the applicable text boxes on the right-hand side, including the "Start Operation Date" under the **Equipment** button. Save this information.

8. Close the Monitor Equipment DataWindow by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

6.3 Updating Control Equipment Information:

1. Click the Control Equipment button in the lower left corner of the Site Management DataWindow. The Control Equipment DataWindow appears with the **Equipment** button information displayed.

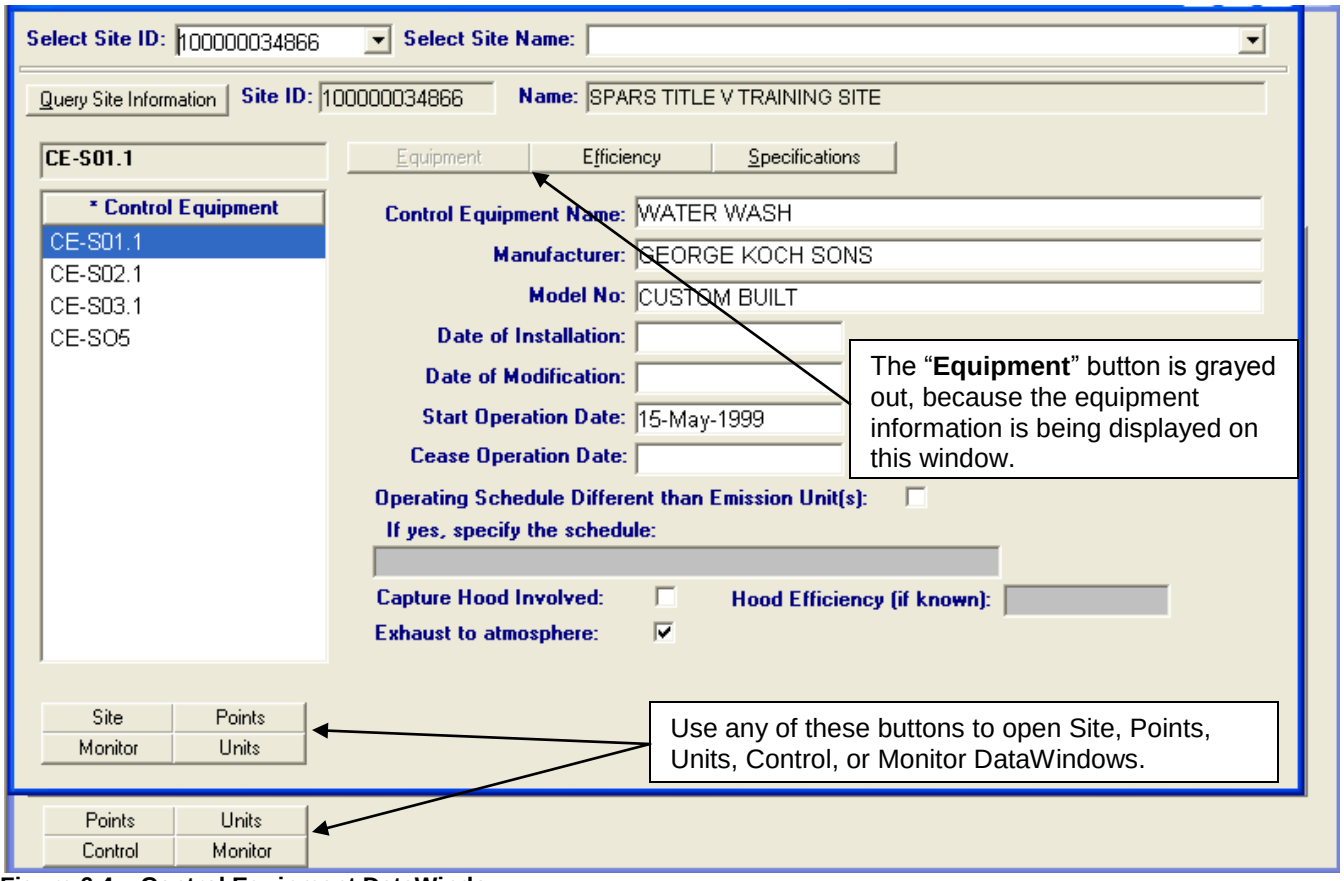


Figure 6.4 – Control Equipment DataWindow

2. Review existing information and make any necessary changes. Additional information regarding control equipment may be found by clicking the buttons displayed on the right side of the Control Equipment DataWindow (**Efficiency** or **Specifications**).

3. Save the control equipment that you updated by clicking the Save button on the toolbar.

4. If the control equipment no longer operates at the facility, enter the "Ceased Operation Date" under the **Equipment** button. I addition, make sure to disconnect the control equipment from all appropriate monitoring equipment, emissions units, and emission points.

5. If you are adding new control equipment, right-click inside the **Control Equipment** box and select Add. Type-in the new ID in the **Control Equipment** box.

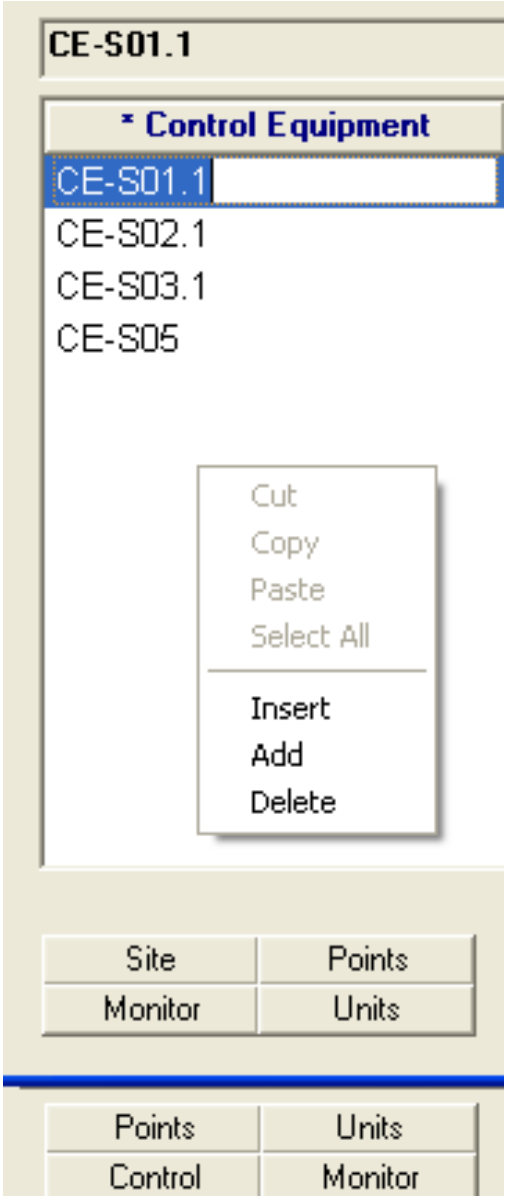


Figure 6.5 – Adding new control equipment

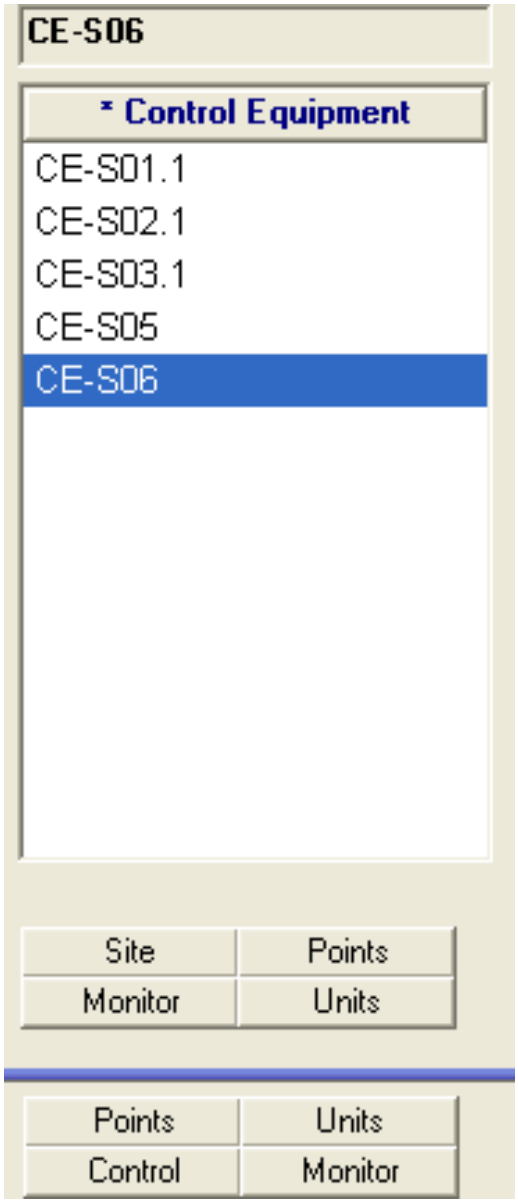


Figure 6.6 – CE-S06 was added to the CE list

6. Enter a descriptive name in the **Control Equipment Name** text box located on the right side of the Control Equipment DataWindow.

7. Save the control equipment that you created by clicking the Save button on the toolbar.

8. Fill-in the applicable text boxes on the right-hand side, including the "Start Operation Date," under the **Equipment** button. Save this information.

9. Close the **Control Equipment** DataWindow by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

6.4 Updating Emission Unit Information:

1. Click the Emission Units button in the lower left corner of the Site Management DataWindow. The **Emission Unit** window appears, with the **Units** button information displayed.

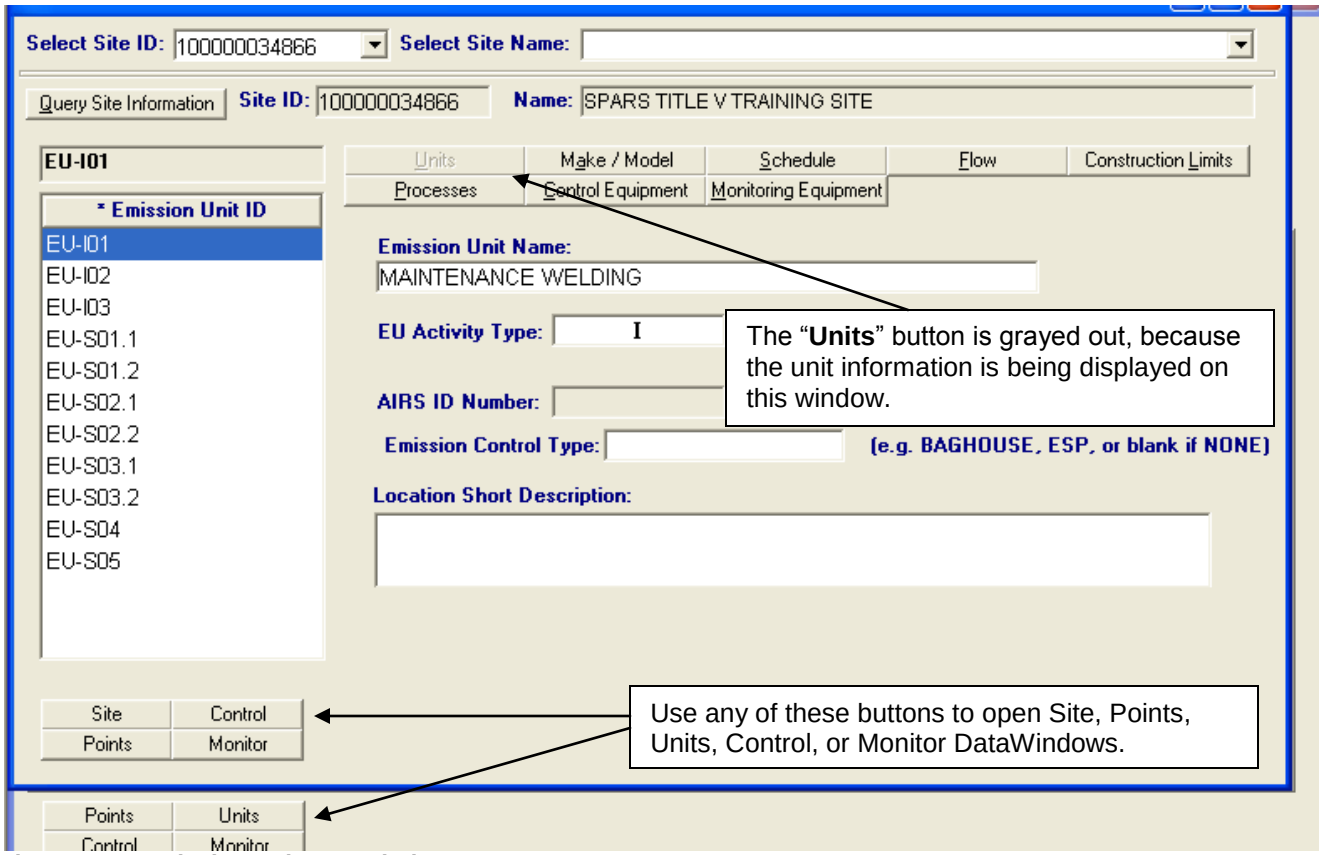


Figure 6.7 – Emission Unit DataWindow

2. Review existing information and make any necessary changes. Additional information regarding emissions units may be found by clicking the buttons displayed on the right side of the Emission Unit DataWindow (**Make/Model**, **Schedule**, **Flow**, **Construction Limits**, **Processes**, **Control Equipment**, or **Monitoring Equipment**).

3. Save the emissions unit(s) that you updated by clicking the Save button on the toolbar.

4. If an emission unit no longer operates at the facility, enter the "Ceased Operation Date" under the **Make/Model** button. In addition, make sure to disconnect the emission unit from all appropriate monitoring equipment, control equipment, and emission points.

5. If you are adding a new emission unit, right click inside the **Emission Unit ID** box and select Add. Type-in the new ID in the **Emission Unit ID** box.

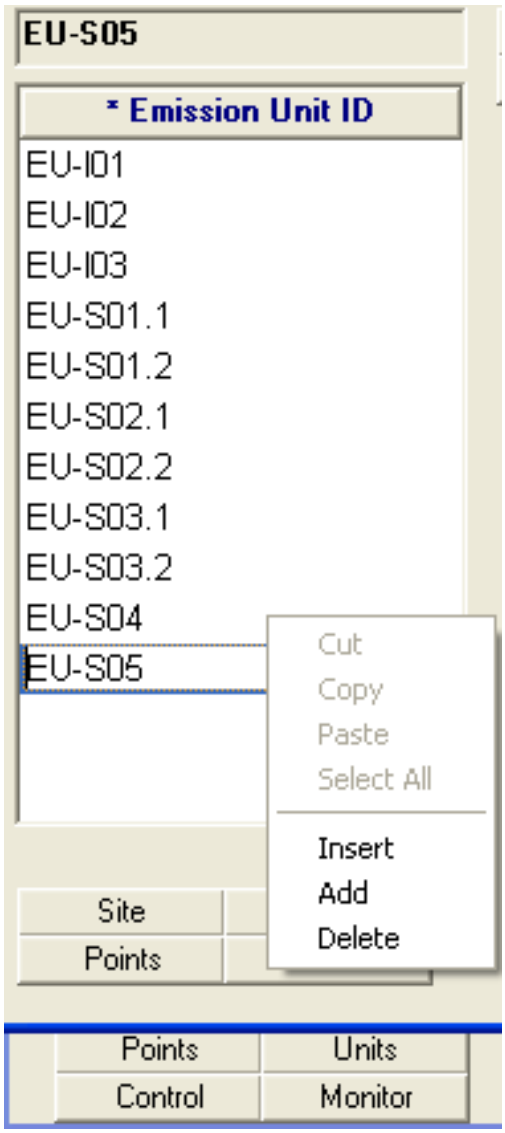


Figure 6.8 – Adding a new emission unit

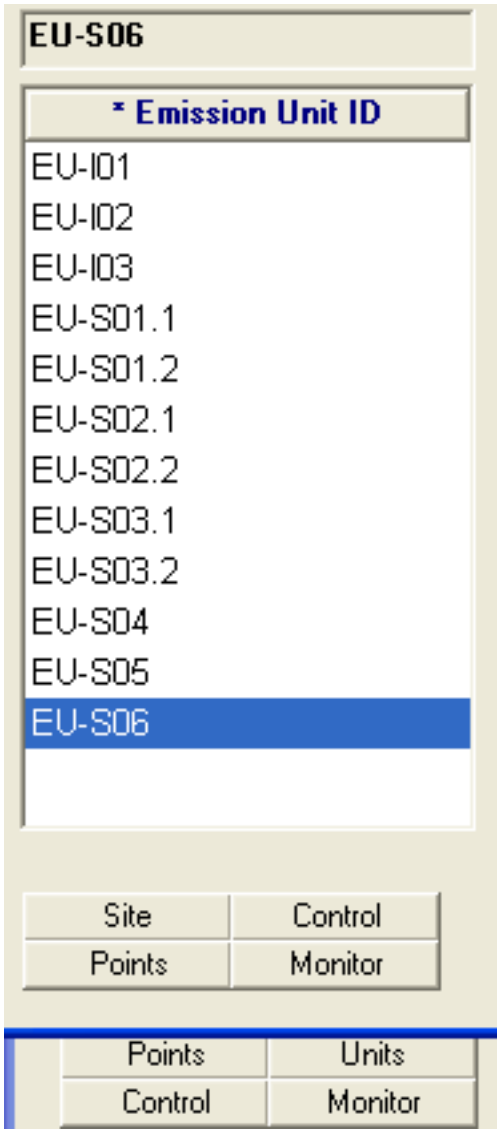


Figure 6.9 – EU-S06 was added to the EU list

6. Enter a descriptive name in the **Emission Unit Name** text box located on the right side of the Emission Unit DataWindow.

7. Save the emission unit(s) that you created by clicking the Save button on the toolbar.

8. Click the **Make/Model** button. Add manufacturer information for the emission unit. Be sure to fill out the construction, installation, and actual start operation dates for the new emissions unit. Save this information.

9. Click the **Schedule** button. Make any updates to the federally enforceable limit and enter the construction permit number on the **Permit or Rule Limit** box. Click the **Construction Limits** button to enter additional construction permit limits. Save this information.

10. Click the **Processes** button. The field above the **Emission Unit ID** box is filled in with the Unit ID that you selected. From the **SCC NO** drop down list, review or select the SCC number for the process. Provide a description of the process in the **Description of Process** field. Be sure to fill-in the following fields: **Max Design Rate Amount**, **Max Design Rate Units**, **and Raw Material.** Save this information.

> **NOTE:** Do not leave empty the **SCC NO** and the **Description of Process**. If this information is not entered, you will not be able to bring this process into the inventory.

11. If the new emissions unit uses two different raw materials, do not create two emission units. Instead, you must create two processes with their corresponding **SCC NO** under the same unit. Click inside each **Description of Process** field to enter the maximum design rate, raw material, etc. for each **SCC NO** (see Figure 6.10).

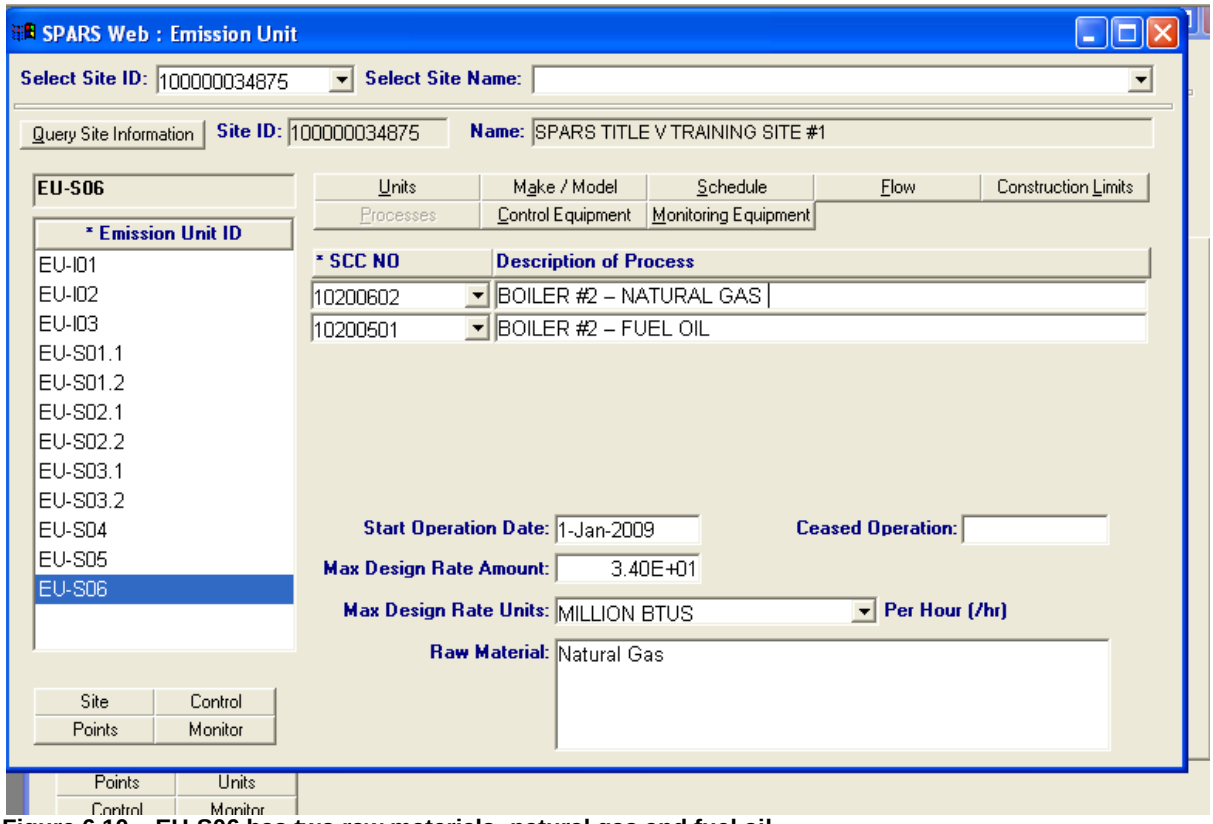


Figure 6.10 – EU-S06 has two raw materials: natural gas and fuel oil.

12. If you find SCCs that were mistakenly entered for one or more emissions units, delete these incorrect SCCs. To do this, highlight the line containing the SCC to be deleted, then right click and choose "Delete." A box opens asking:" Are you sure?" Click "**Yes**". Save these changes.

13. Connect the new emissions unit to control equipment: Click on the **Control Equipment** button. This is located to the right of the **Processes** button. If there is control equipment associated with this emission unit, highlight the Unit ID in the **Emission Unit ID** box, and then select the correct **Control Equipment ID** in the right hand window. Use the left pointing arrow to link the control equipment to the emission unit. Save this information.

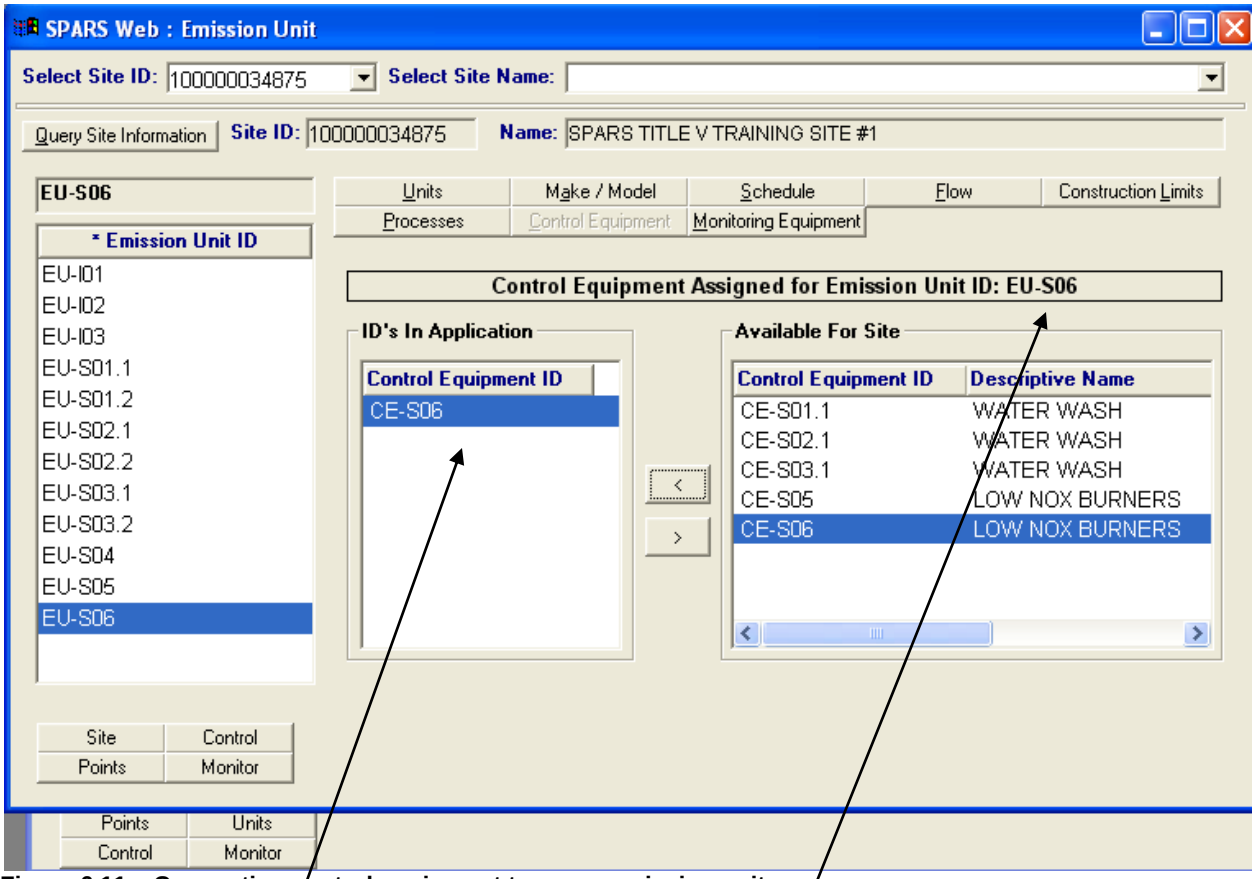


Figure 6.11 – Connecting control equipment to a new emission unit

When connecting control equipment to a new emission unit, make sure that the Unit ID appears here. If it does not, refresh this window, by closing the **Emission Unit** DataWindow and opening it again.

The control equipment CE-S06 is connected to emission unit EU S06 by moving it from the **Available for Site** box to the **ID's In Application** box.

14. Close the **Emission Unit** DataWindow by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

6.5 Updating Emissions Point Information:

1. Click the Emission Points button in the lower left corner of the Site Management DataWindow. The **Emission Point** DataWindow appears, with the **General** button information displayed.

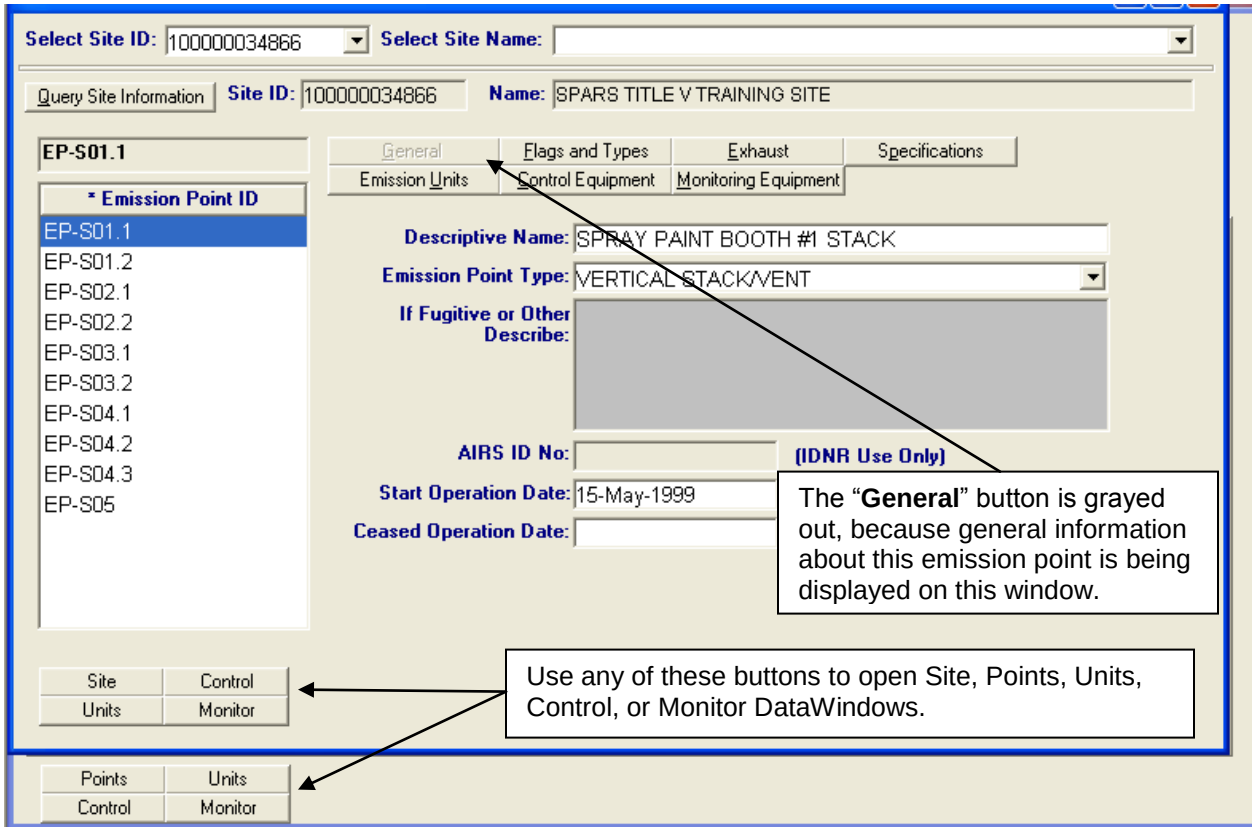


Figure 6.12 – Emission Point DataWindow

2. Review existing information and make any necessary changes. Additional information regarding emissions points may be found by clicking the buttons displayed on the right side of the Emission Point DataWindow (**Flags and Types**, **Exhaust**, **Specifications**, **Emission Units**, **Control Equipment**, or **Monitoring Equipment**).

3. Save the emissions point(s) that you updated by clicking the Save button on the toolbar.

4. If an emission point no longer operates at the facility, enter the "Ceased Operation Date" under the **General** button. In addition, make sure to disconnect this emission point from all appropriate monitoring equipment, control equipment, and emissions units.

5. If you are adding a new emission point, right click inside the **Emission Point ID** box and select Add. Type-in the new ID in the **Emission Point ID** box.

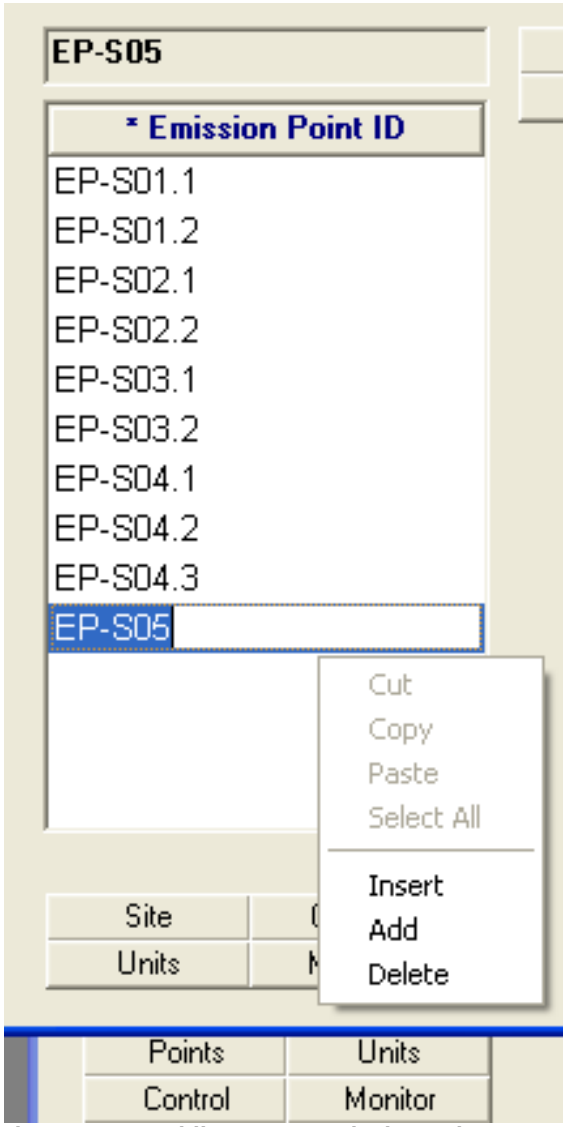


Figure 6.13 – Adding a new emission point

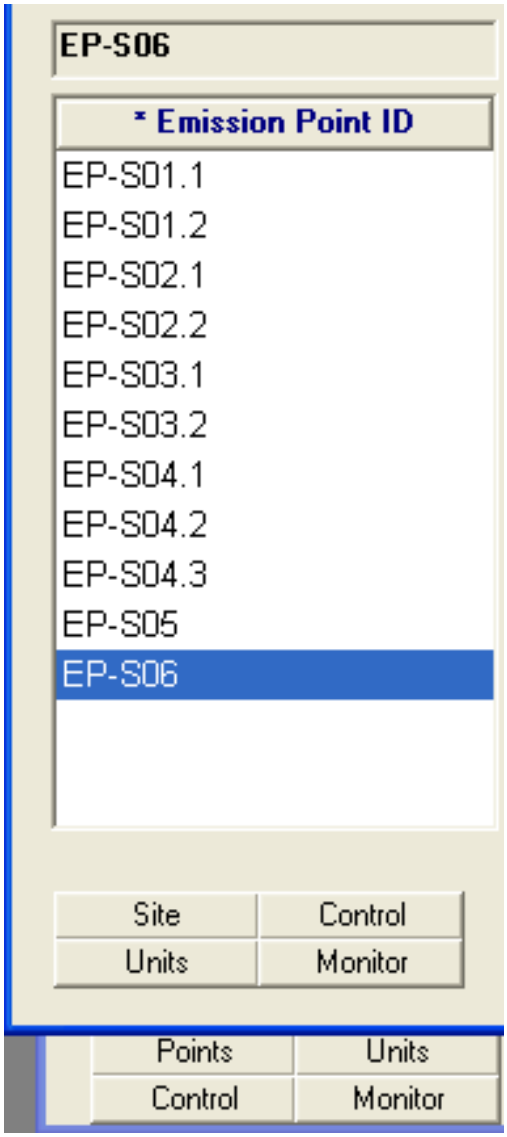


Figure 6.14 – EP-S06 was added to the EP list

6. Enter a descriptive name in the **Descriptive Name** text box located on the right side of the Emission Point DataWindow.

7. Save the emission point(s) that you created by clicking the Save button on the toolbar.

8. Under the **General** tab, be sure to indicate the **Emission Point Type**: (**Vertical Stack/Vent**, **Wall Vent**, **Fugitive**, or **Other**). If the emission point type is **Fugitive** or **Other**, describe it in the text box provided. In addition, indicate the "Start Operation Date" for this emission point.

9. Click the **Flags and Types** button. Check the box for rain cap if the flow on this emission point is obstructed with a rain cap. Be sure to use the text box provided to describe any obstruction or if it is a horizontal discharge. Save this information.

10**.** Click the **Exhaust** button. Enter the exhaust flow rate, exhaust flow rate units and the exit temperature. Save this information.

11. Click the **Specifications** button. Enter the stack opening dimensions and corresponding units. Enter the stack height from ground. Check the discharge style (V, VR, or D) that best describes the emission point.

12. Connect the new emission point to the appropriate emission unit(s): (1) Highlight the Point ID in the **Emission Point ID** box, and then click the **Emission Units** button. Highlight the Unit ID in the right hand window and use the left pointing arrow to connect the emission unit and emission point together. Save this information.

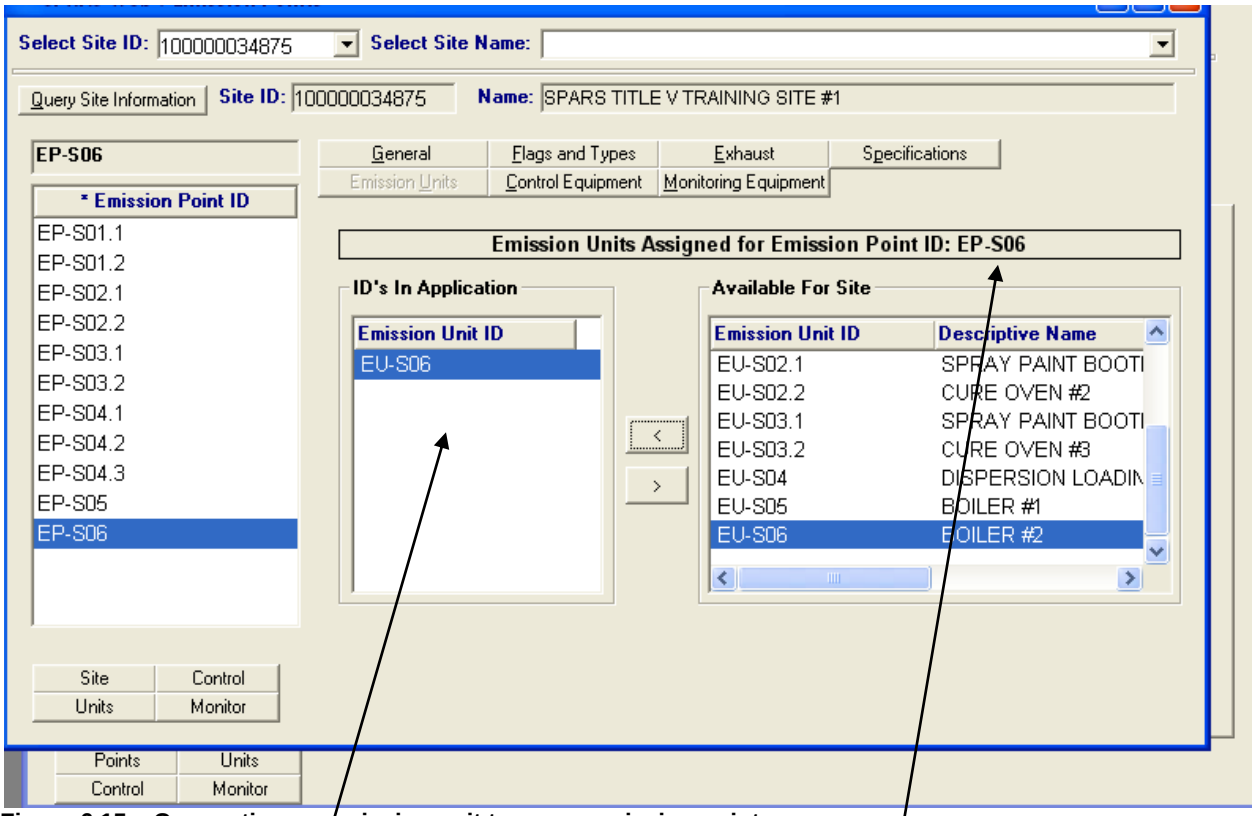


Figure 6.15 – Connecting an emission unit to a new emission point

When connecting an emission unit to a new emission point, make sure that the Point ID appears here. If it does not, refresh this window, by closing the **Emission Point** DataWindow and opening it again.

The emission unit EU S06 is connected to emission point EP-S06 by moving it from the **Available for Site** box to the **ID's In Application** box.

13. Connect the new emission point to the appropriate control equipment: (1) Highlight the Point ID in the **Emission Point ID** box, and then click the **Control Equipment** button. Highlight the Control Equipment ID in the right hand window and use the left pointing arrow to connect the control equipment and emission point together. Save this information.

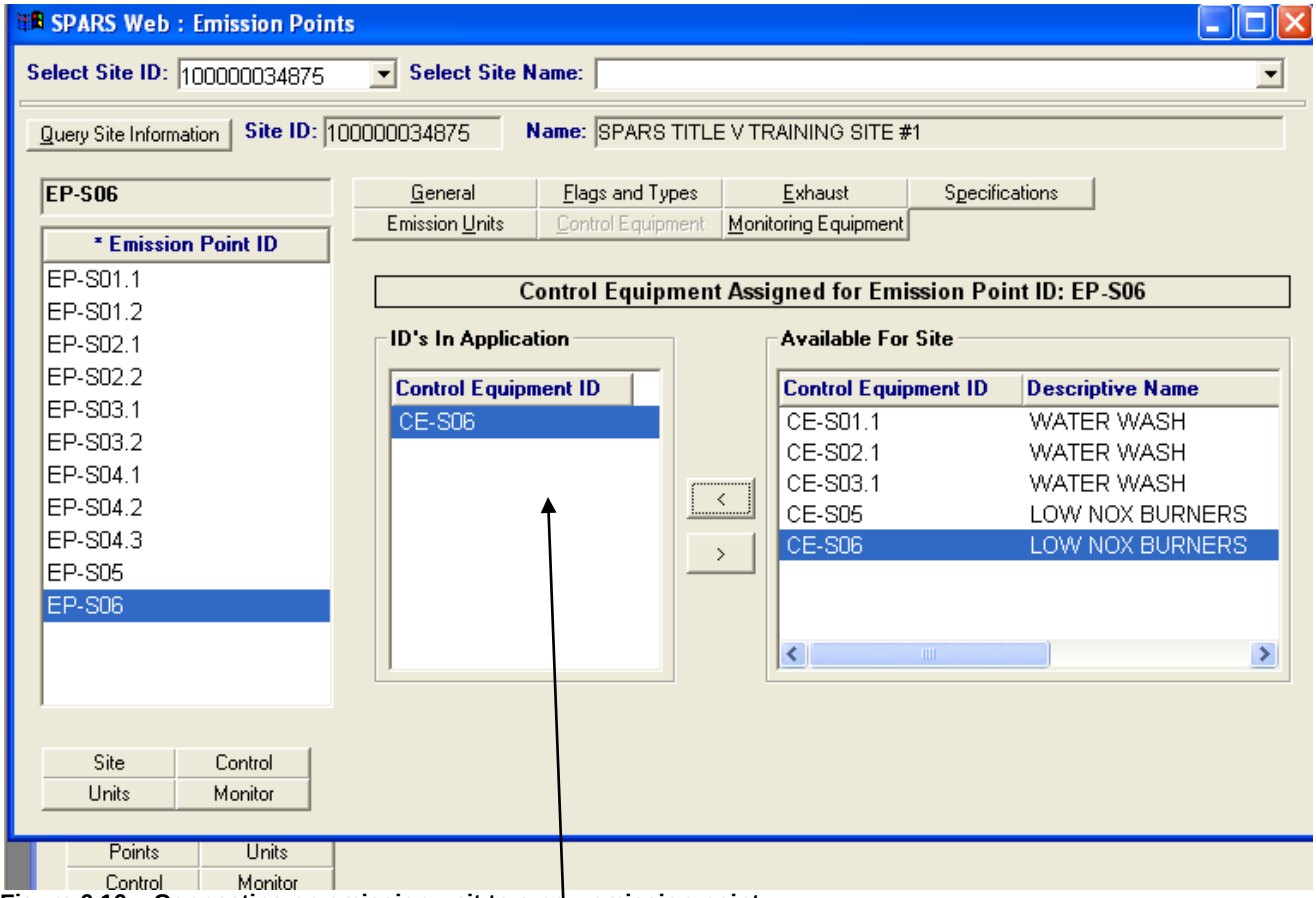


Figure 6.16 – Connecting an emission unit to a new emission point

The control equipment CE-S06 is connected to emission point EP S06 by moving it from the **Available for Site** box to the **ID's In Application** box.

14. Close the Emission Point DataWindow by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

7.0 Querying using the Application Query Tool

As mentioned before, the Application Query Tool is a SPARS Web DataWindow, which allows the user to access, view, create, edit, or delete[5] applications and inventories.

To access the Application Query Tool, do the following:

1. Access SPARS Web as indicated in Section 3.0

2. Click the Quick Navigation Tool button (the hand). See Figure 7.1 below.

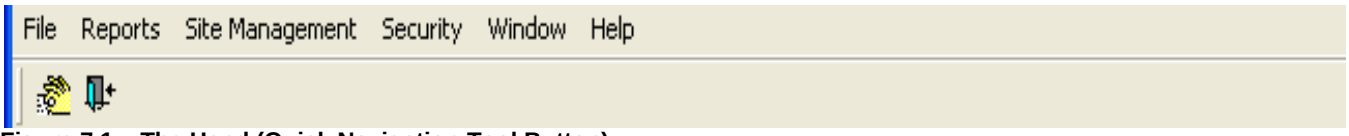


Figure 7.1 – The Hand (Quick Navigation Tool Button)

3. The Application Query Tool opens:

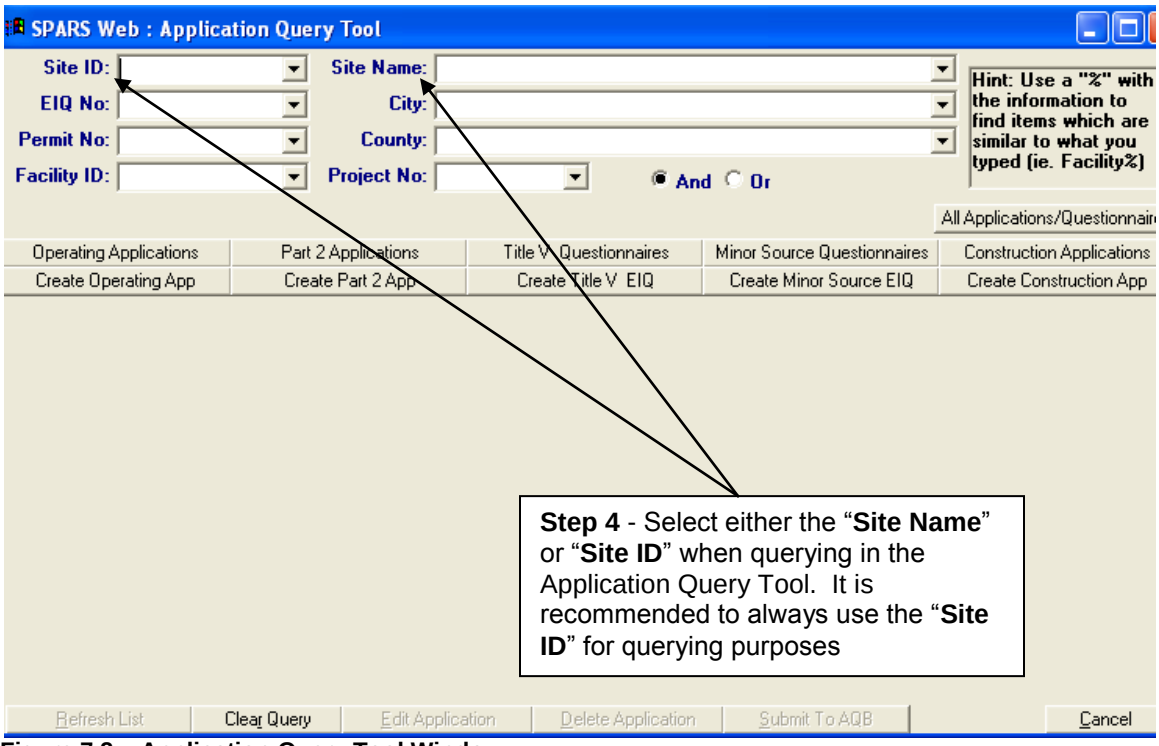


Figure 7.2 – Application Query Tool Window

4. Select **Site Name** or **Site ID** to query for electronic documents stored in SPARS for your facility. A more detailed explanation regarding using the Application Query Tool is given later in this chapter.

5. Click on the Title V Questionnaires **button to see existing emission inventories for the selected facility.**

[5]Only applications and inventories in the INDUSTRY Phase may be deleted

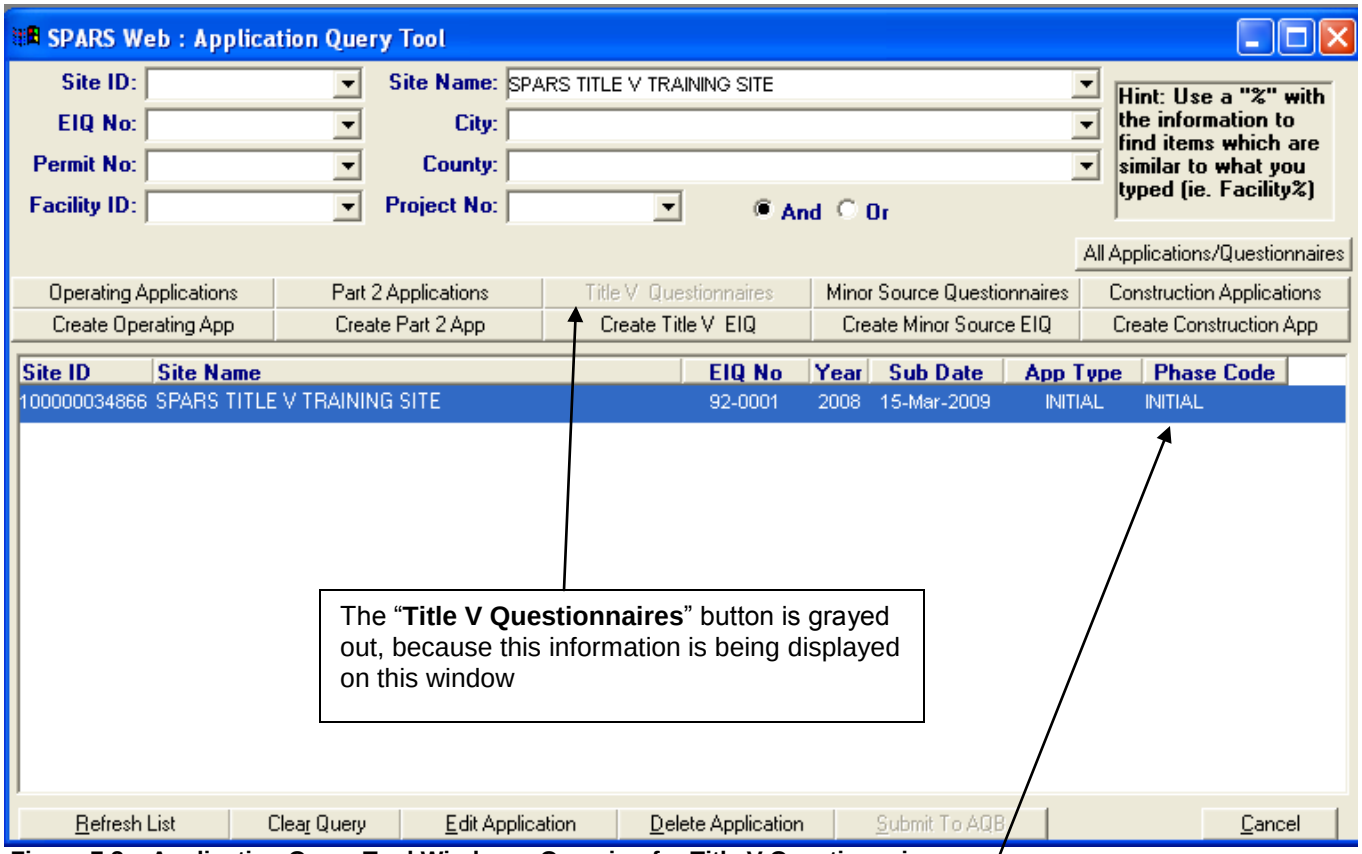


Figure 7.3 – Application Query Tool Window – Querying for Title V Questionnaires

The "**Title V Questionnaires**" button is grayed out, because this information is being displayed on this window

Since this inventory is in the INITIAL Phase, SPARS will not allow you to edit or delete it. If you open this inventory and attempt to see the information that it contains without using print-preview (see Chapter 10), a database error will occur and you will be disconnected from the database.

6. Sometimes applications or inventories are not pulled by querying the Application Query Tool. There are three potential reasons for this:

- The facility has changed names and there were no applications or inventories submitted under the new name.
- The Site ID and the Site Name both have been chosen, but the **And**/**Or** options have not been used correctly.
- More than two searching parameters have been used.

The global solution to this issue is to use the Site ID as the **only searching parameter**.

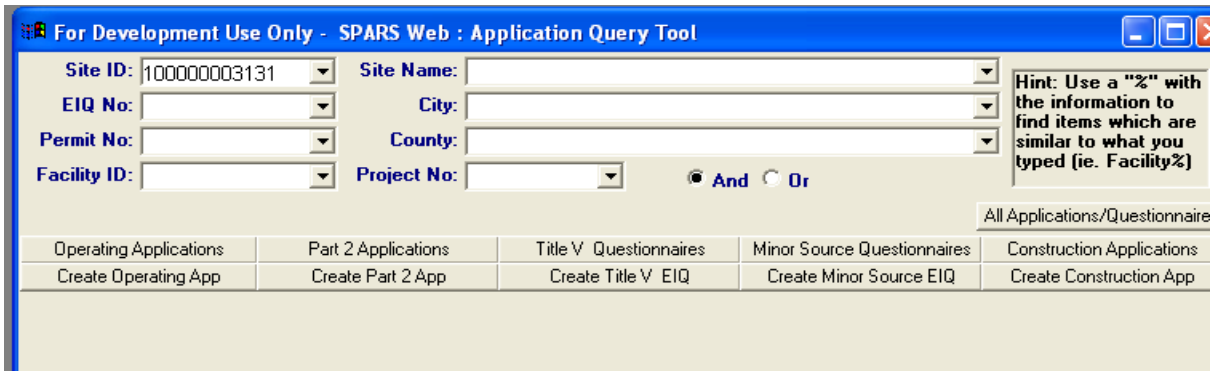


Figure 7.4 – Site ID as the only searching parameter. The And option is automatically selected.

There are times when using a second searching parameter is appropriate. In this case, please select the **Or** option.

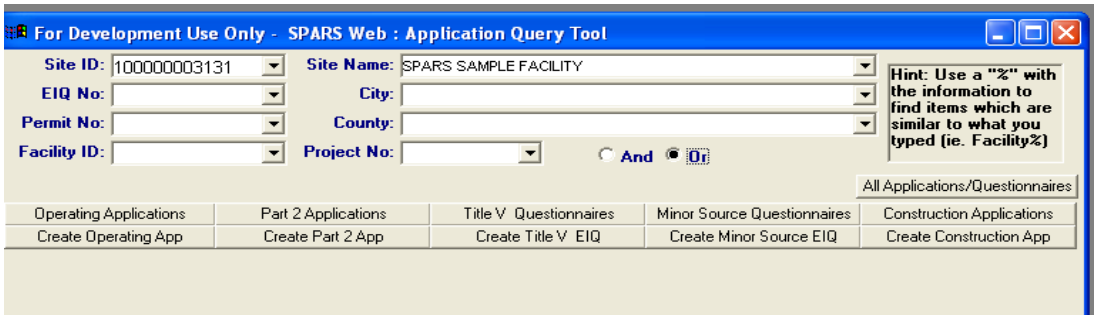


Figure 7.5 – Two searching parameters (Site ID and Site Name). The Or option must be selected.

Never use more than two searching parameters in the Application Query Tool. If this tip does not work, please call us.

8.0 Creating your Title V Emissions Inventory

After updating the information in Site Management, you are now ready to create the Title V emissions inventory.

1. Open the Application Query Tool and select the facility for which you will be creating the Title V emissions inventory.

2. Click on the **Create Title V EIQ** button.

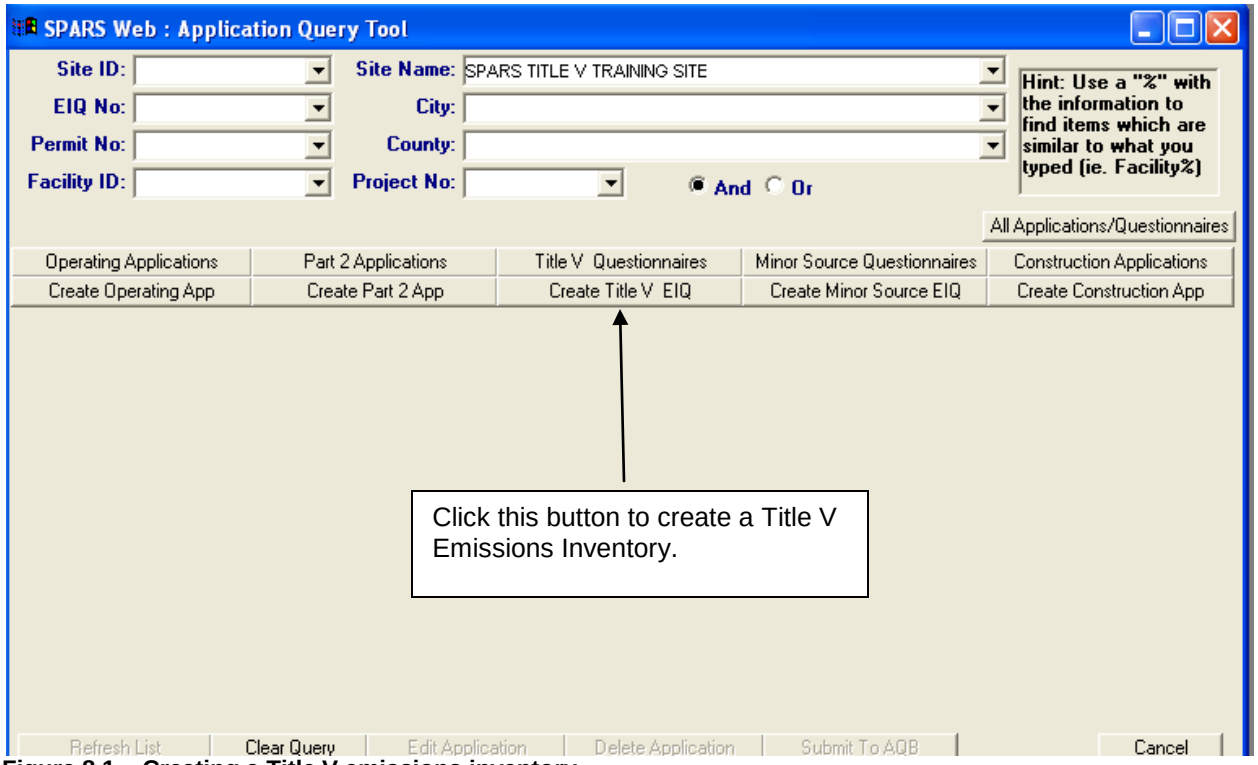


Figure 8.1 – Creating a Title V emissions inventory

3. The **Inventory/Application Date & Year** window opens (see Figure 8.2)

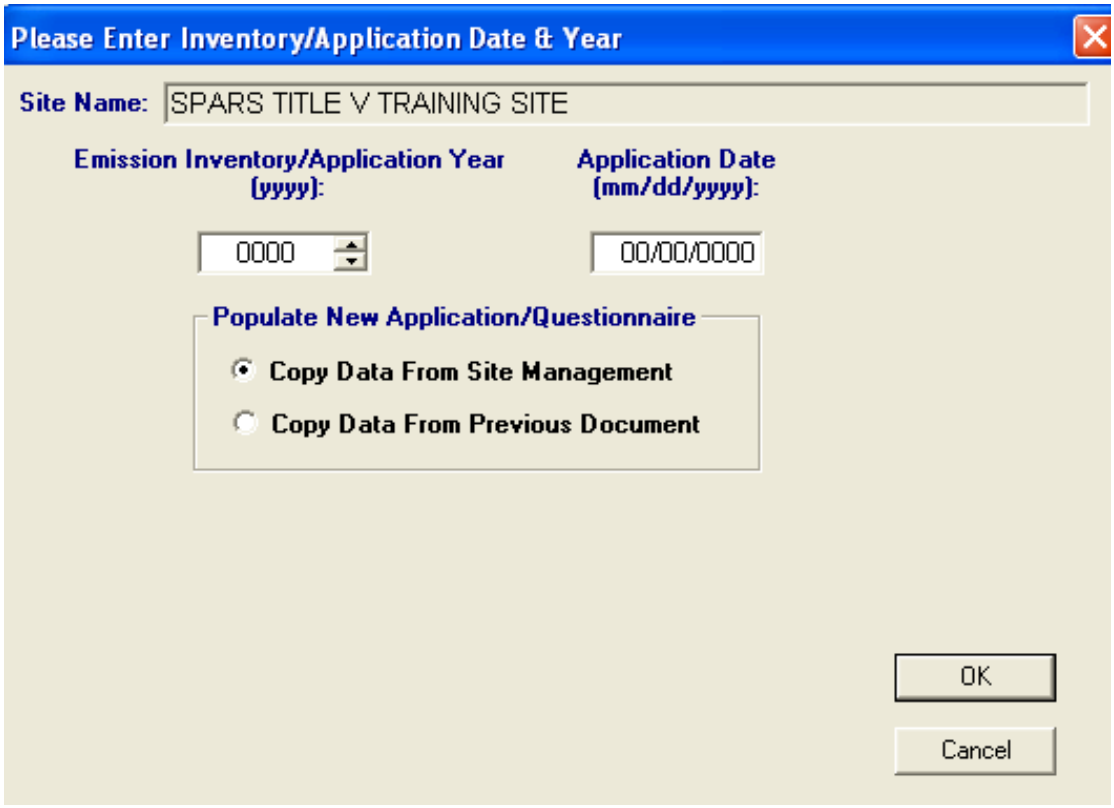


Figure 8.2 – Inventory/Application Date and Year DataWindow

4. Enter or select the correct year for your inventory in the **Emission Inventory/Application Year** field. The Year for inventories is usually the previous calendar year. If you are correcting an inventory submitted in a year other than the previous calendar year, enter the year for that inventory in the **Emission Inventory/Application Year** field.

5. Enter the correct date in the **Application Date** field. This date is the day that you begin working on the Inventory. You cannot enter a future date.

6. Choose how you would like to populate your inventory: (1) By copying data from Site Management or (2) By copying data from a previous inventory. If a previous inventory does not exist, the only choice available will be **Copy Data From Site Management**, since the **Copy Data from Previous Document** button will be grayed out. If a previous inventory exists, choose the most recent minor source inventory available.

> **NOTE:** The default selection is **Copy Data From Site Management** as shown in Figure 8.2 above. Make sure that when you are creating your inventory, you select the appropriate button (see Figure 8.3).

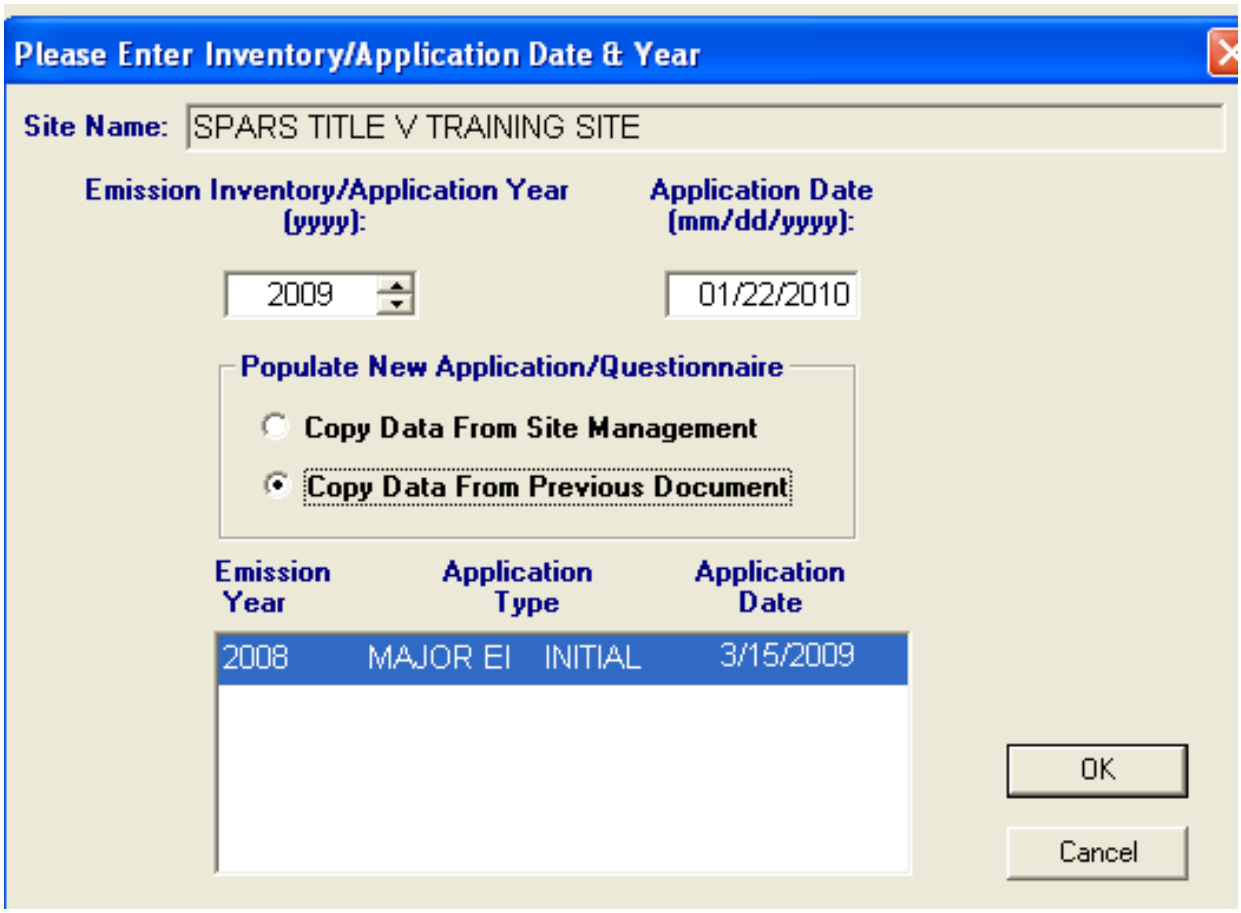


Figure 8.3 – Copying Data from Previous Document

7. Click **OK**.

8. The inventory forms will appear as depicted in Figure 8.4 (be patient; it takes a few minutes for the forms to appear). Except for the throughputs, all other information included in the emissions inventory that you selected is copied into the new inventory.

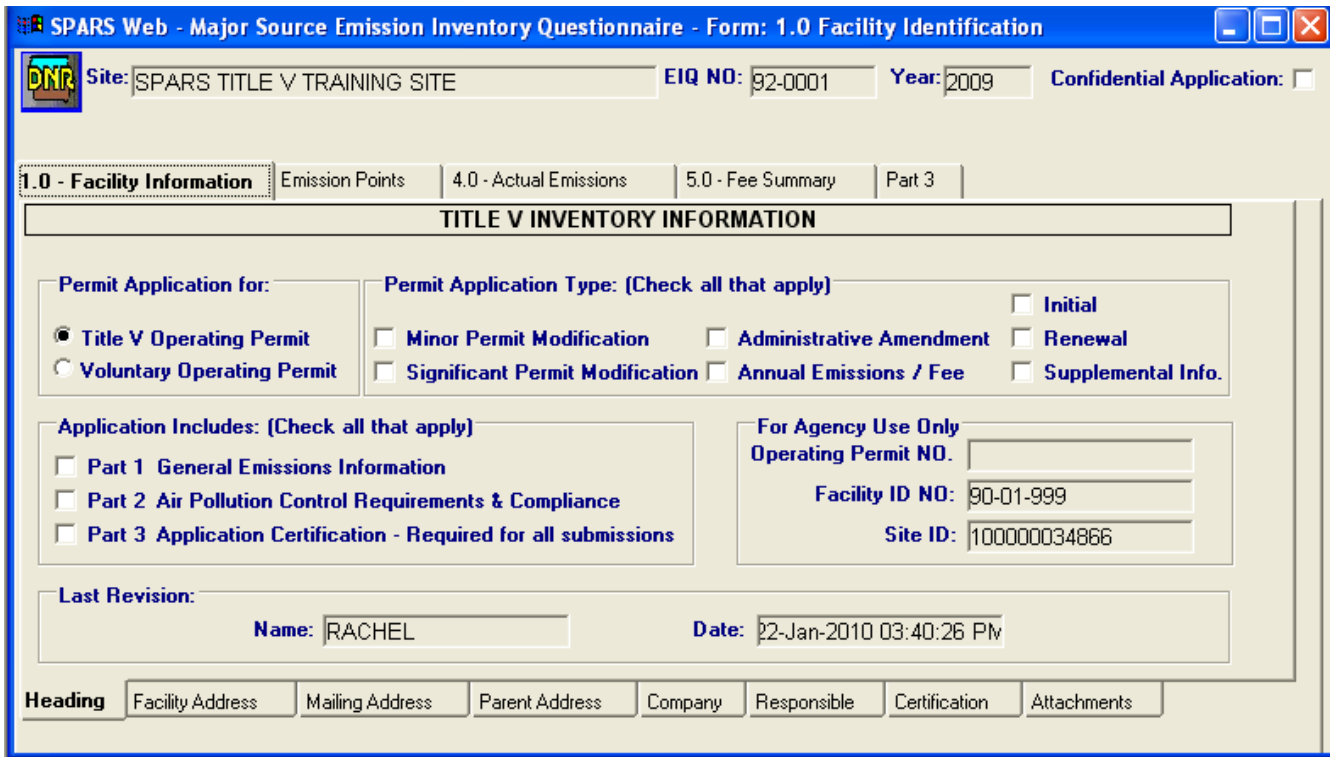


Figure 8.4 – Newly created Title V Emissions Inventory

9. If you are ready to complete the inventory, skip to Chapter 9, otherwise, close the new inventory by selecting File >Close on the toolbar, or by clicking the **X** on the upper right hand of the screen.

10. On the Application Query Tool, click the **Title V Questionnaires** button. If this button is grayed out, click the **Refresh List** button on the lower left of the Application Query Tool DataWindow. See Figure 8.5.

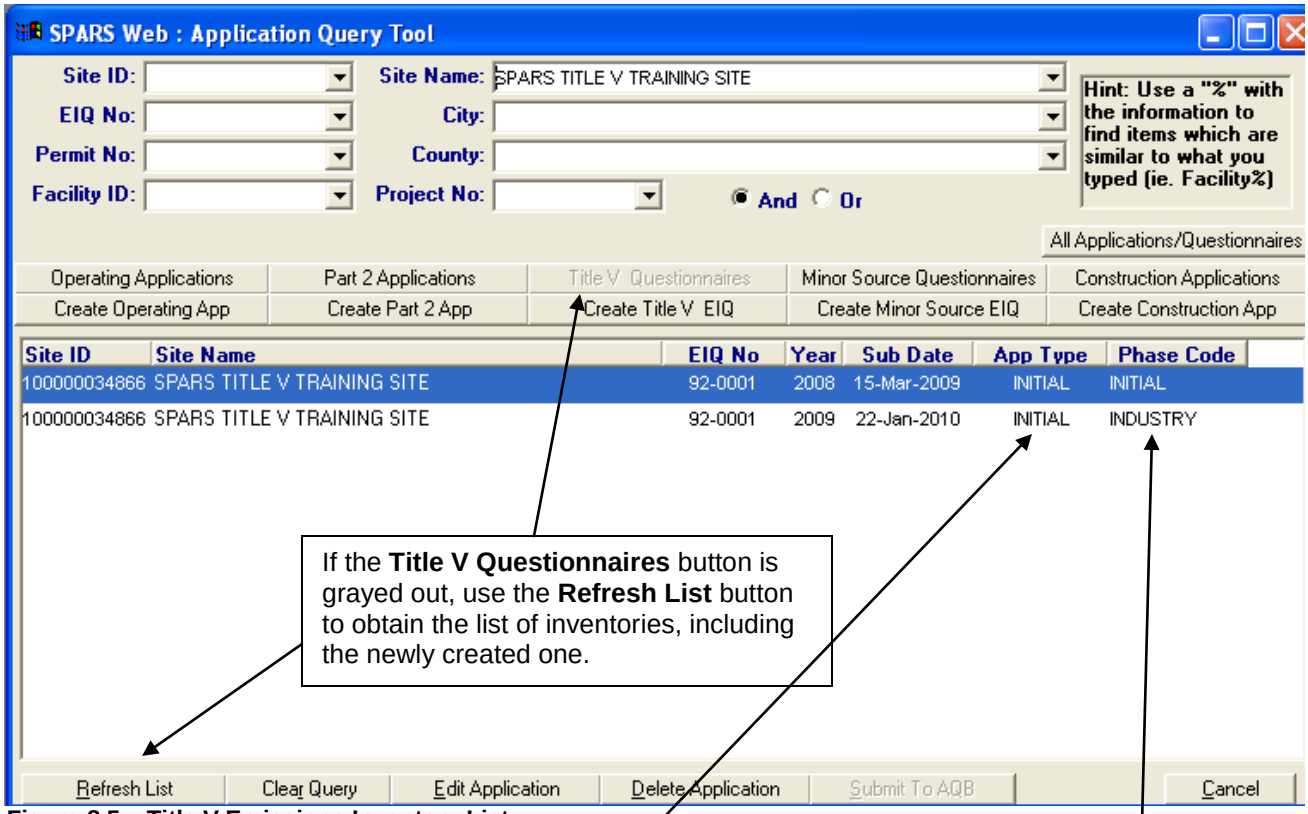


Figure 8.5 – Title V Emissions Inventory List

If the **Title V Questionnaires** button is grayed out, use the **Refresh List** button to obtain the list of inventories, including the newly created one.

The newly created inventory is in the **INDUSTRY** Phase. This means that you are able to edit it or delete it, if needed.

The Inventory **Type** for your new inventory is **INITIAL**. If you delete this inventory and create another one with the same Inventory Year as the deleted one, the **Type** for this second inventory will be **SUPP** (supplemental) - See Figure 8.6. In this case, please contact us so that we can change the **Type** back to **INITIAL**.

NOTE: If for some reason you decide to delete the INITIAL inventory, when you create a new one using the same Inventory Year as the one deleted, the inventory will no longer be an INITIAL one, but a SUPP inventory, instead (see Figure 8.6). Please call us and we will change the inventory type from SUPP back to INITIAL.

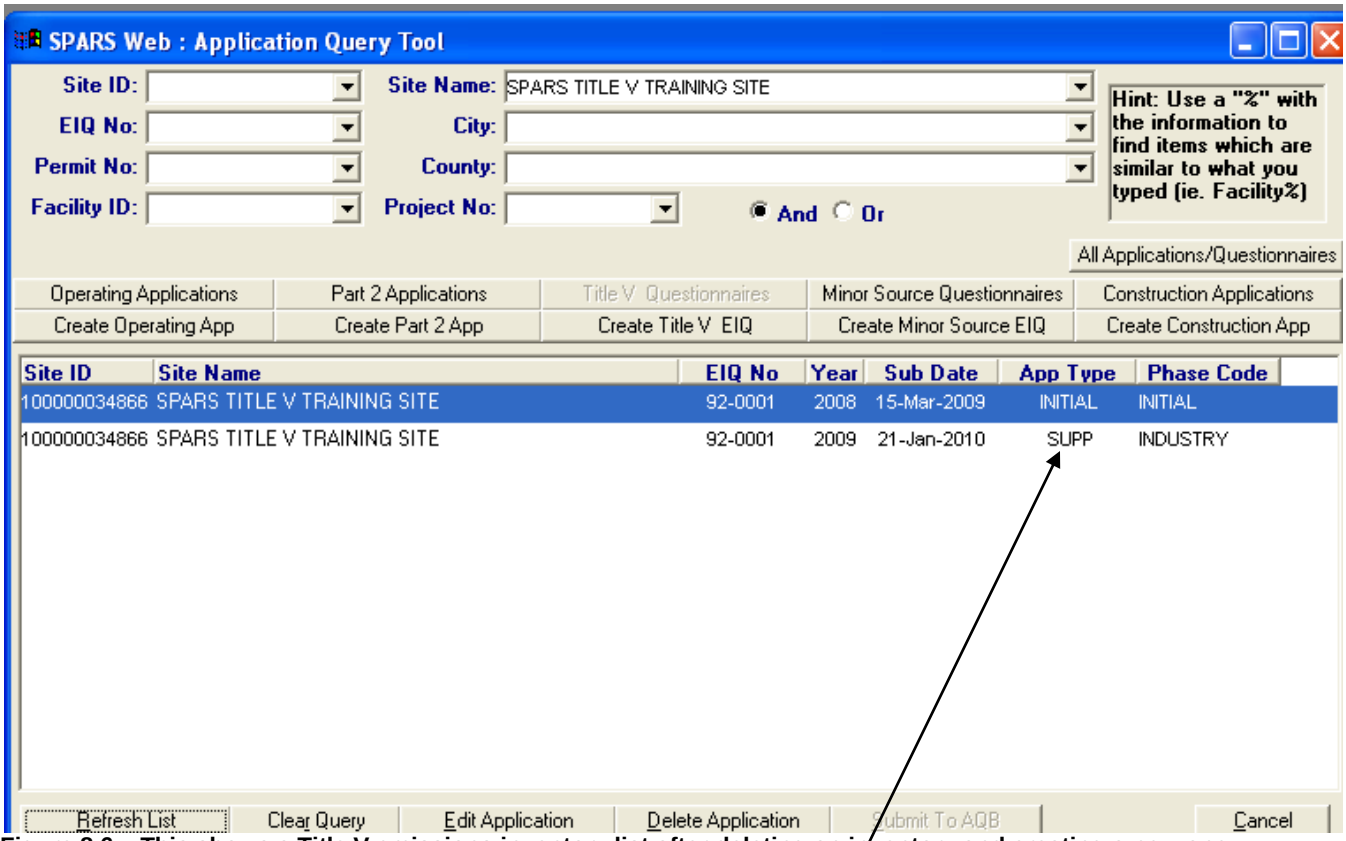


Figure 8.6 – This shows a Title V emissions inventory list after deleting an inventory and creating a new one with the same Inventory Year as the deleted one.

A new inventory was created with the same Inventory Year as the deleted inventory. Therefore, the Inventory **Type** for this new inventory is **SUPP**.

9.0 Completing your new Title V Emissions Inventory

The Title V Emissions Inventory is comprised of four main forms (see Figure 9.1):

1. **Form 1.0: Facility Identification**,
2. **Form 4.0: Emission Unit – Actual Operations & Emissions**,
3. **Form 5.0: Title V Annual Emissions Summary**, and
4. **Part 3: Application Certification**.

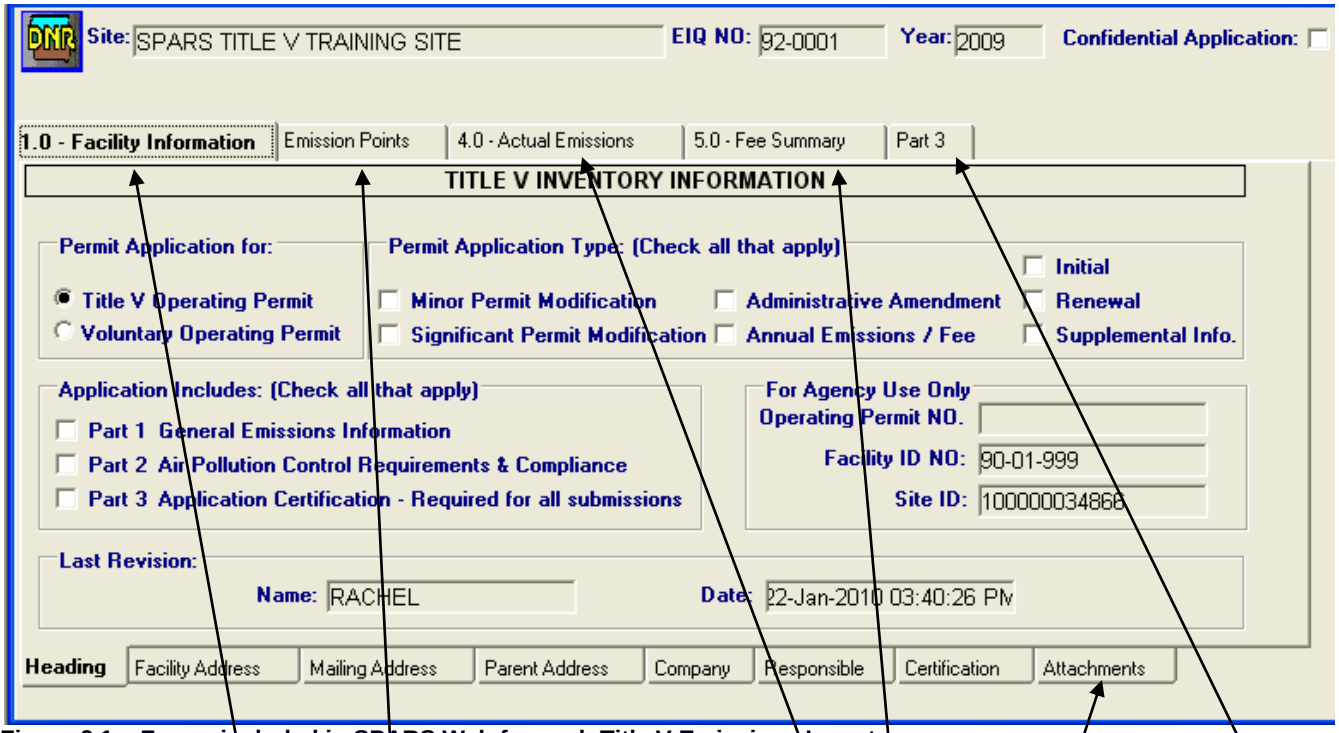


Figure 9.1 – Forms included in SPARS Web for each Title V Emissions Inventory

Information required in **Form 1.0**: *Facility Address*, *Mailing Address*, *Parent Company Address and Contact*, *Principal Activity*, *Responsible Official Name and Address*.

Information required in **Form 4.0** for *each* emission unit: *Throughput and Schedule*, *Control Equipment, Monitor Equipment*, *Emission Point (s) associated with the unit, Actual Emissions*, and *Calculations*.

Information required in **Part 3**: *Inventory Contents*, *Responsible Official's Certification of Truth, Accuracy, and Completeness* (signature and date).

The **Emission Points** tab is used to bring emission points and their associated emission units to the inventory.

Information required in **Form 5.0**: *Annual Emissions Summary (*total emissions per pollutant for the entire facility).

All additional documents should be attached to Form 1.0.

In addition, there are two other forms that should be included in each Title V emissions inventory:

1. **CA-01: Calculations**. This form should include calculations that are provided in support of the information reported on Form 4.0. A CA-01 form may also be included in support of the information reported on Form 5.0. SPARS Web does not include a separate tab for Form CA-01, because it is automatically generated when information is entered in the **Calc** sub tab in SPARS Form 4.0 or the **Calculations** sub tab in SPARS Form 5.0.

> **NOTE**: Supporting calculations in Excel spreadsheets, Word documents, PDF files, etc. should be attached to SPARS Form 1.0

2. **Greenhouse Gas Inventory Reporting Form**. As required by Iowa Code section 455B.131, emissions of greenhouse gases are to be included in the emissions inventory submitted to the DNR. Since SPARS does not have a built-in greenhouse gas form, facilities should download and complete the appropriate greenhouse gas form from the Air Quality Website (www.iowacleanair.com). The electronic copy of the completed greenhouse gas form should then be attached to Form 1.0 in SPARS Web.

How you complete your new inventory in SPARS Web depends on *how* you created it.[6] There are two ways to create your inventory: (1) By copying data from Site Management or (2) By copying data from a previous inventory.

The two main reasons for creating your inventory by copying data from Site Management are:

- This is the first inventory submitted by your facility and therefore, there is no previous inventory from which to copy.
- Your facility has undergone so many changes from the last inventory submittal that the inventory in SPARS no longer represents the current operation and/or equipment at your facility.

When creating an inventory from Site Management, it will include all your updates to your facility's Site Management information, as well as all equipment connections. However, the following fields will be blank for **Form 4.0**: **Raw Material Name**, **Yearly Total Unit Code**, **Actual Operating Rate/Schedule**, **Emission Factors**, **Emission Factor Units**, or **Emission Factor Source**. **Form 5.0** and **Part 3** will also be empty.

Inventories are most commonly created by copying data from a previous inventory already stored in the SPARS database. By doing this, the new inventory includes all needed information, except for throughputs and updates that were made to Site Management after the last inventory was submitted.

However, for both types of inventories, the following applies when dealing with equipment and/or process no longer in operation:

[6] Refer to the previous section where the process of creating an emissions inventory is described.

- Remove from the inventory any equipment and/or process that has been decommissioned and any applicable permits have been rescinded.

- Do not remove from the inventory any equipment/process no longer in operation if at least one of the following occurred:
  - Equipment/process was used during the Inventory Year.
  - Equipment/process was not used during the Inventory Year, but it remains at the facility and has the potential to be used again.

NOTE: If you are not able to complete the new emissions inventory during one session, you may access the inventory at any time by doing the following:

a. Open the Application Query Tool.
b. Select the facility that you are interested in.
c. Click on the **Title V Questionnaires** button to see existing emission inventories for the selected facility.
d. Highlight the new inventory, which should be in INDUSTRY Phase, and double-click.

9.1 Completing an Inventory created from Site Management

The process of completing an inventory created from Site Management is described below, but first, you must find the inventory you created. To do this, refer to Chapter 7.0 "Querying using the Application Query Tool."

9.1.1 Updating Form 1.0: Facility Identification

1. On the 1.0 - **Facility Information** tab, do the following:
   - Under "**Permit Application Type:**" check the **Annual Emissions/Fee** box.
   - Under "**Application Includes:**" check **Part 1** and **Part 3** boxes.

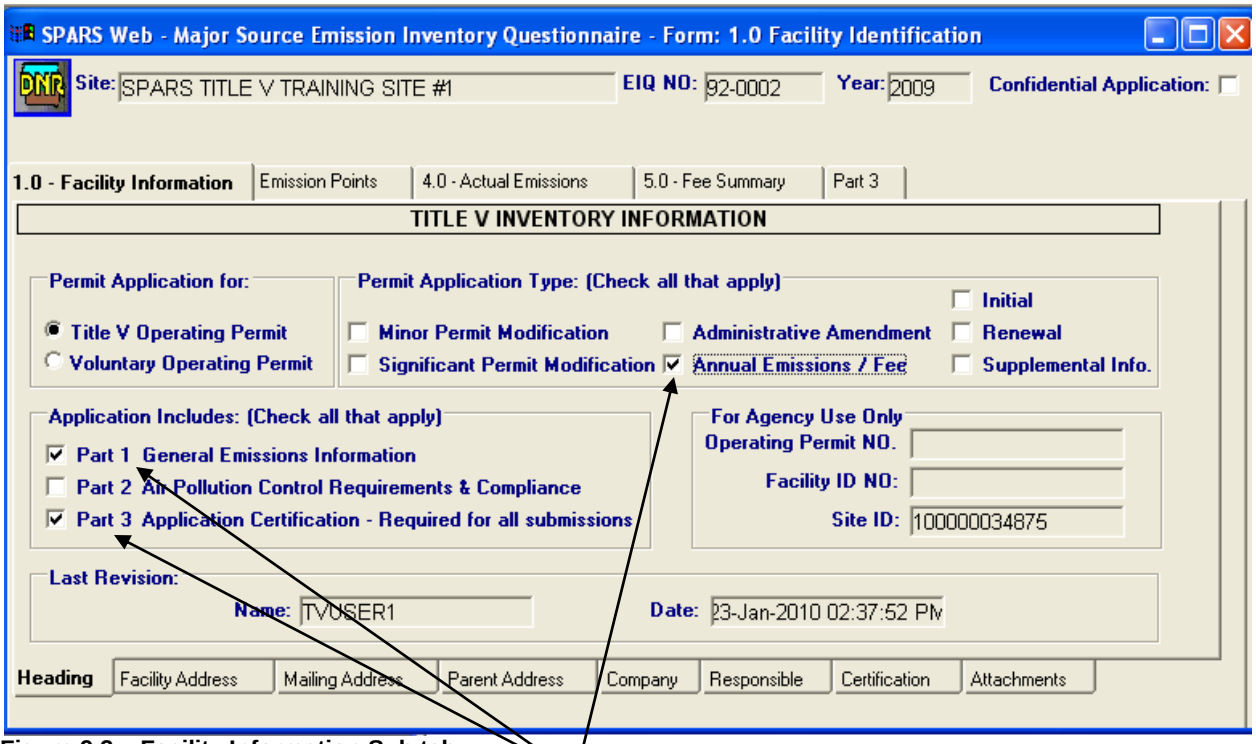


Figure 9.2 – Facility Information Sub tab.

2. Update **Form 1.0** with any new information regarding contacts, addresses, and other information that is not updated through Site Management screens.[7] Save any changes by either clicking  on the top left or by clicking **File** and choosing "**Save**." When saving, if asked

[7] When an inventory is created from Site Management, all the updates that you just made to your facility's Site Management information will be copied to the new inventory. The only exceptions are the name, title, and phone number for the facility contact and the parent company contact, because you do not have access to this information in Site Management. As a result, the information that you will find in **Form 1.0** for your facility contact and parent company contact might not be up-to-date.

to use this information as default information when creating future forms, click **YES** (see Figure 9.3).

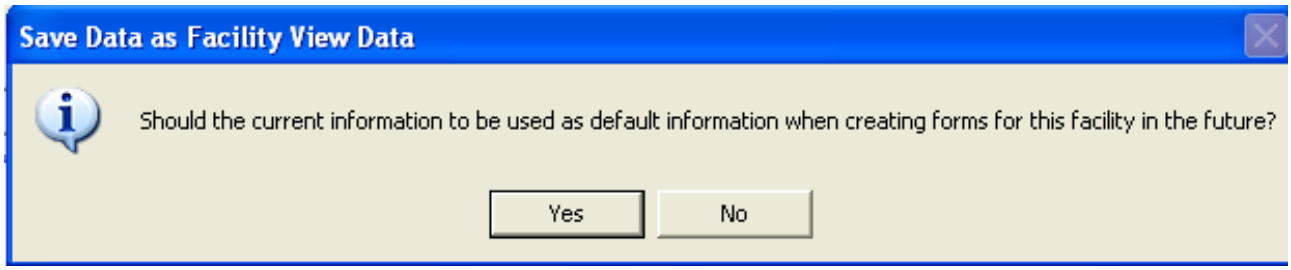


Figure 9.3 – Current Information to be used as Default

3. Attach any and all documents to the **Attachments** sub tab of **Form 1.0** by clicking the **Add** button (see Figure 9.4). Enter a description, save, and **view** each document (to ensure it was actually attached to SPARS). To make changes to documents already attached to SPARS, you must:

a. Remove these documents from SPARS Web.
b. Make changes to original documents and save to your network or computer.
c. Re-attach modified documents to SPARS Web.
d. Enter a description, save, and view each modified document.

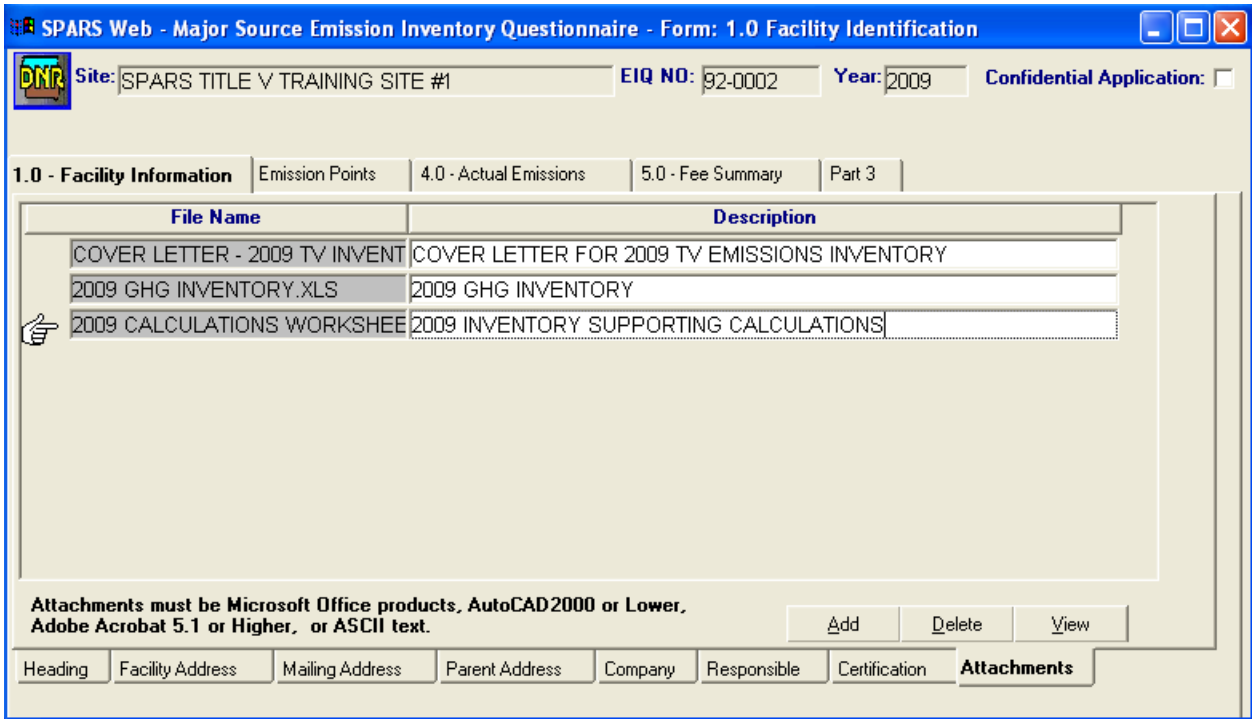


Figure 9.4 – Attaching documents to Form 1.0 of the Title V Emissions Inventory

9.1.2 Working with the Emission Points Tab

Since you created your inventory from Site Management, all the emission points, emission units, and control equipment are already included and correctly connected in the new inventory.

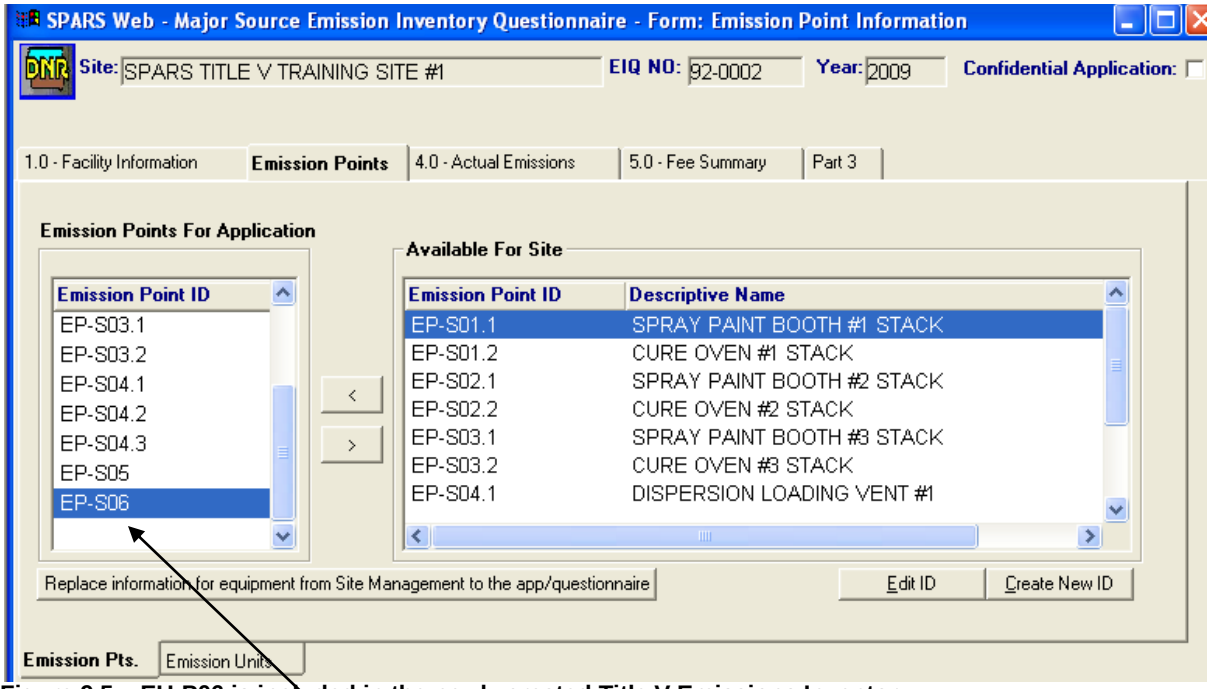


Figure 9.5 – EU-P06 is included in the newly created Title V Emissions Inventory

Emission Point EP-S06, which was added to Site Management in Chapter 6, is automatically included in the new inventory when created from Site Management.

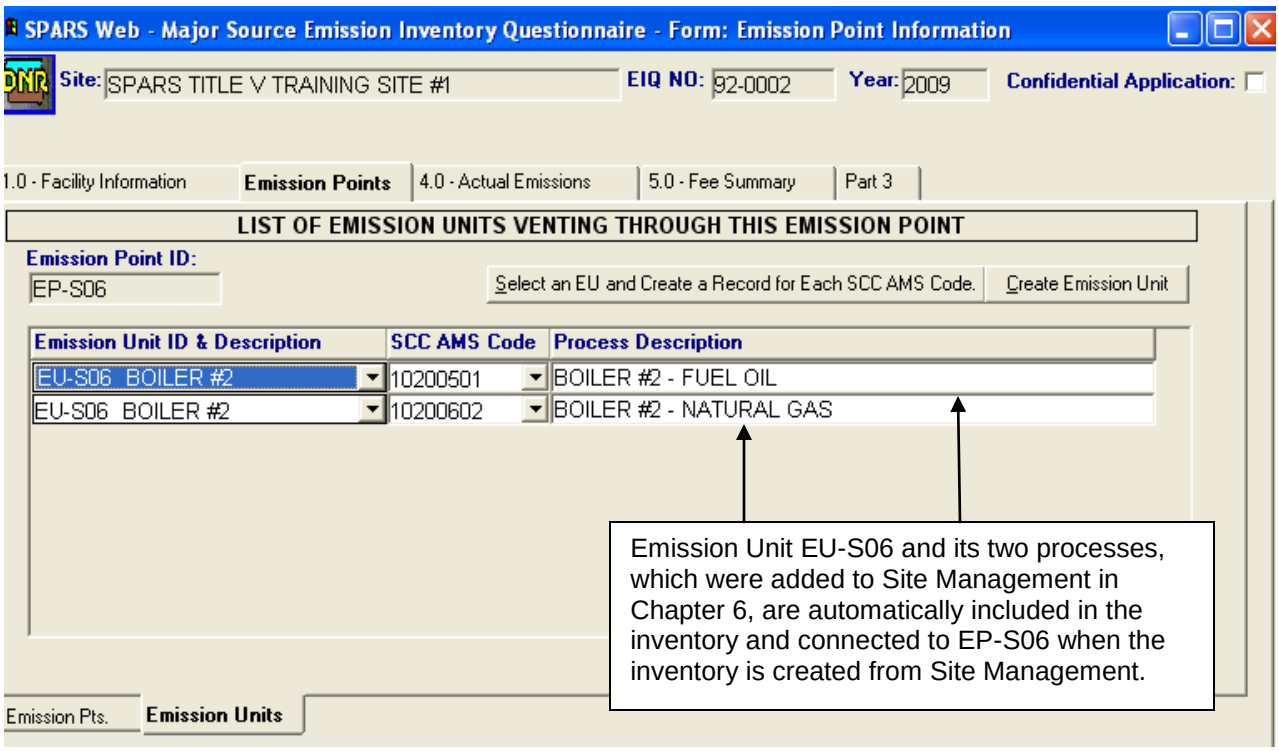


Figure 9.6 – EU-S06 processes are included in the newly created Title V Emissions Inventory

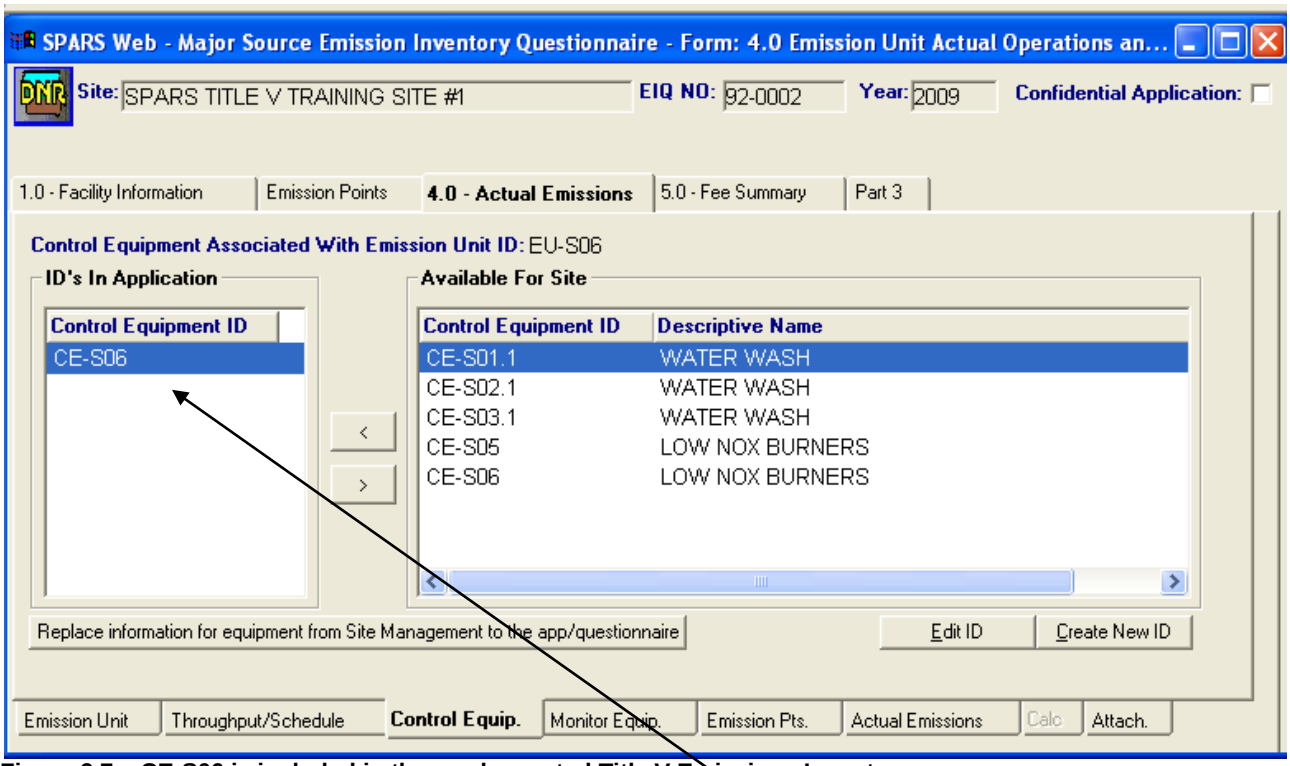


Figure 9.7 – CE-S06 is included in the newly created Title V Emissions Inventory

Control Equipment CE-S06 is already connected to EU-S06 and included in Form 4.0

9.1.3 Removing Equipment and Processes from the Inventory

Equipment that was decommissioned prior to the Inventory Year should be removed from the new inventory, ***but not from Site Management***. As indicated before, Site Management keeps an inventory of past and present units, points, control equipment, and monitoring equipment. Deleting or modifying these, will affect previously submitted applications and inventories.

Therefore, **never** delete these from Site Management, even when one or more of them are no longer in operation at your facility. Instead, enter a cease operation date in the appropriate Site Management fields. If the equipment ID needs to be modified, please contact us.

To remove equipment and processes from the current inventory:

1. Click the **4.0 – Actual Emissions** tab.

2. Highlight the emission unit/process to be removed.

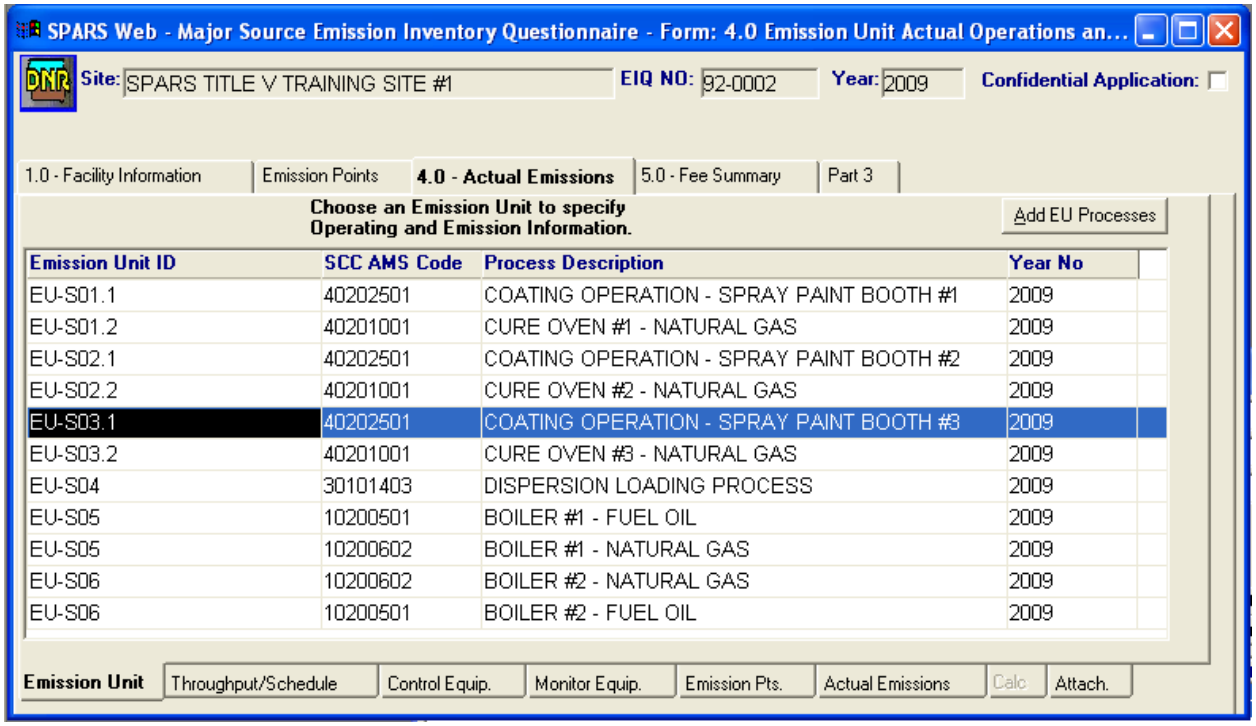


Figure 9.8 – EU-S03.1 was dismantled prior to the Inventory Year; therefore, it will be removed from the current inventory.

3. Click the **Emission Pts**. sub tab and move from left to right the emission point connected to the emission unit/process to be removed.

4. If monitoring equipment is connected to the emission unit/process to be removed, click the **Monitor Equip.** sub tab and then move from left to right the appropriate monitoring equipment.

5. If control equipment is connected to the emission unit/process to be removed, click the **Control Equip.** sub tab and then move from left to right the appropriate control equipment.

6. Go back to the **Emission Unit** sub tab. Make sure that the emission unit/process to be removed is highlighted. Right click and select “Delete” to remove the emission unit/process from the inventory (see Figure 9.9).

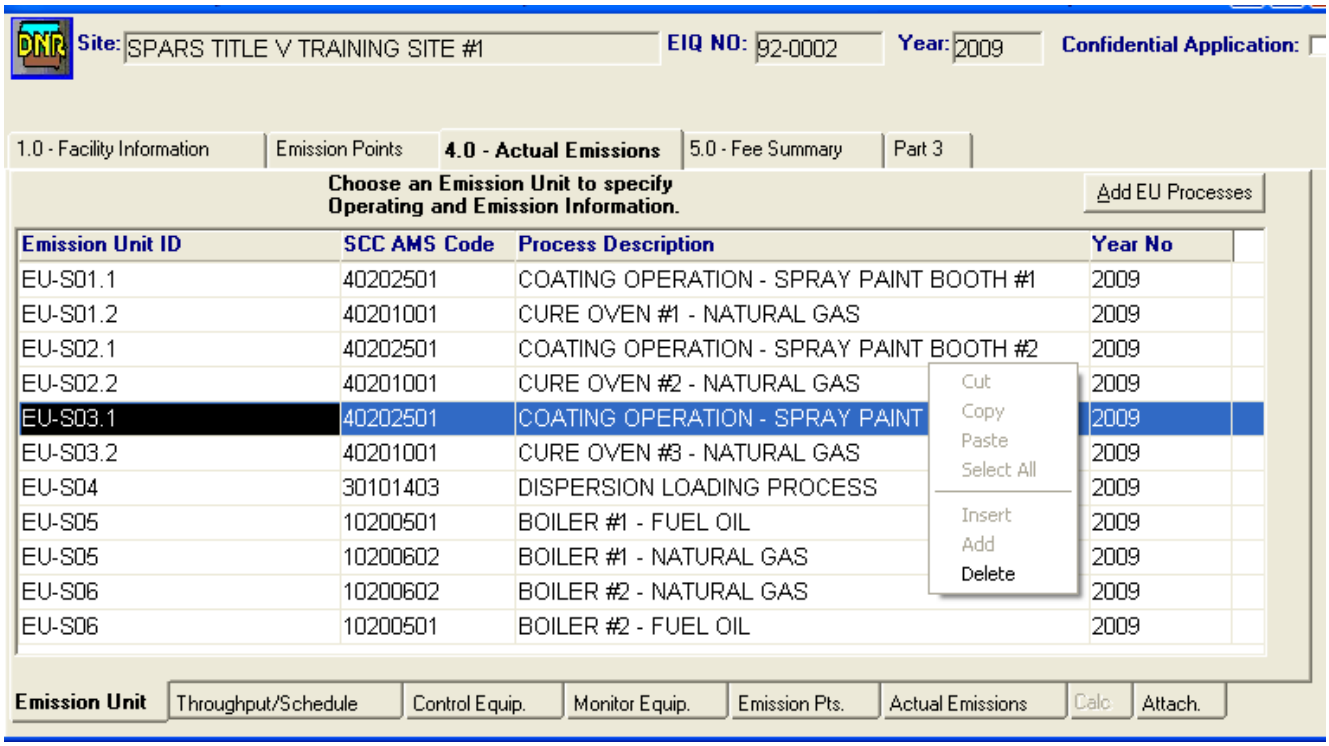


Figure 9.9 – Deleting EU-S03.1 from the current inventory.

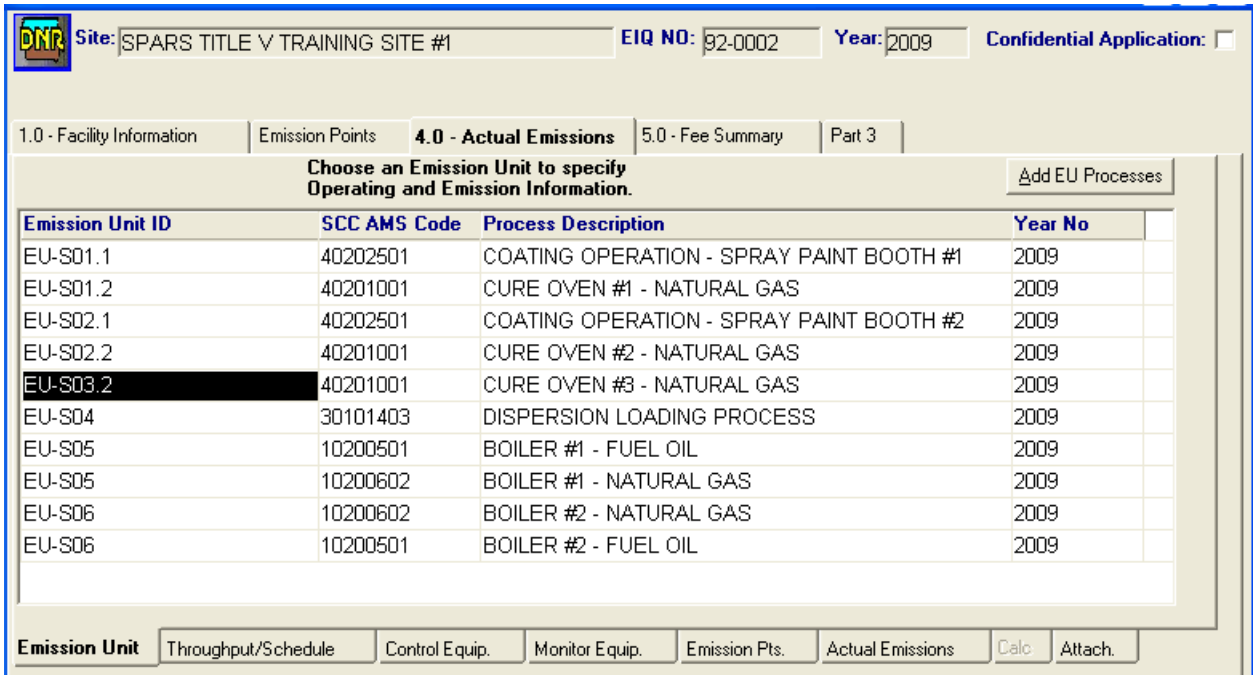


Figure 9.10 – EU-S03.1 is gone from the current inventory.

7***. IMPORTANT***: Refresh the inventory by clicking the **X** on the top right corner.

9.1.4 Completing Form 4.0 Emission Unit – Actual Operations & Emissions

1. Open the inventory that you are working on. It must be in the INDUSTRY Phase.

2. Click the **4.0 – Actual Emissions** tab.

3. Highlight an emission unit and click the **Throughput/Schedule** sub tab.

4. Complete all required fields (see Figure 9.11).

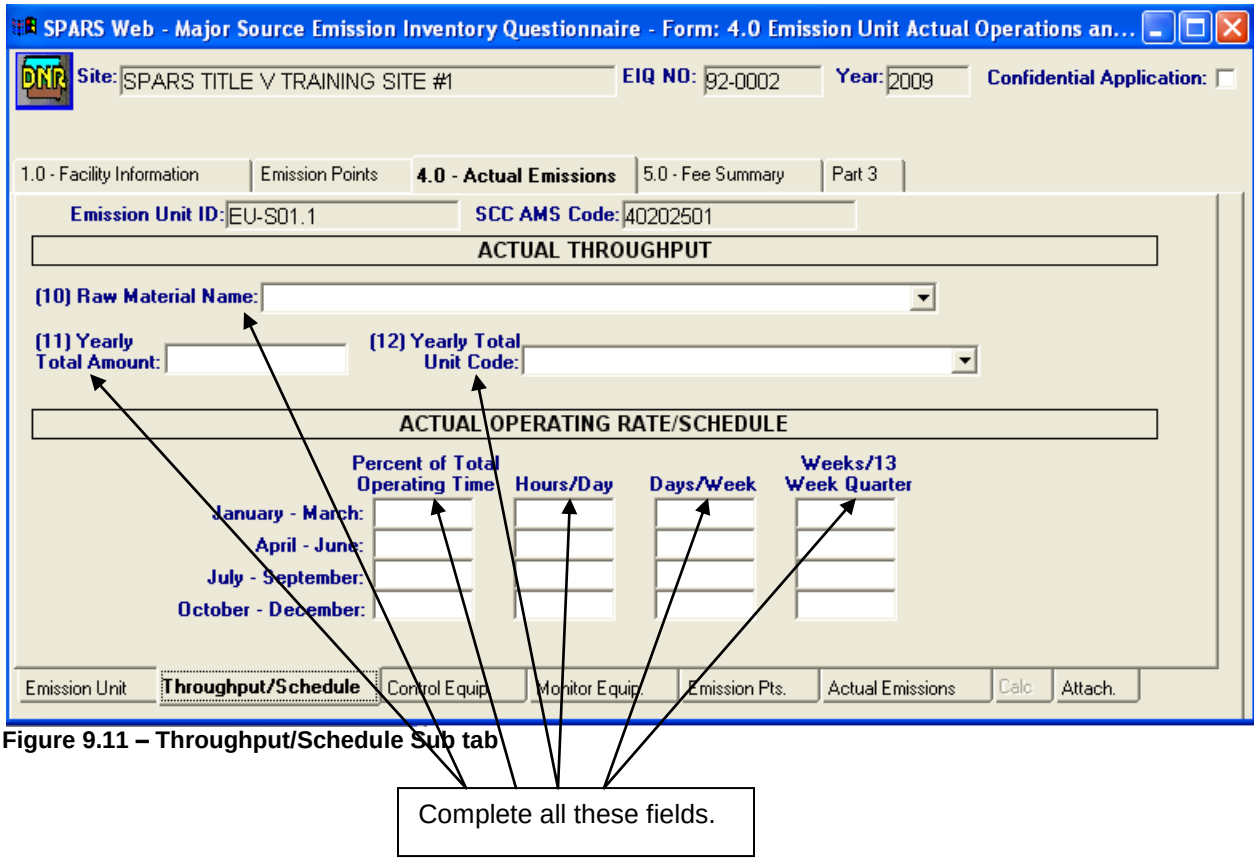


Figure 9.11 – Throughput/Schedule Sub tab

5. Click the **Emission Pts.** sub tab first, then the **Monitor Equip.** sub tab next, and finally the **Control Equip.** sub tab and make sure that these connections are correct. Save any changes to these sub tabs.

6. Click the **Actual Emissions** sub tab (see Figure 9.12)

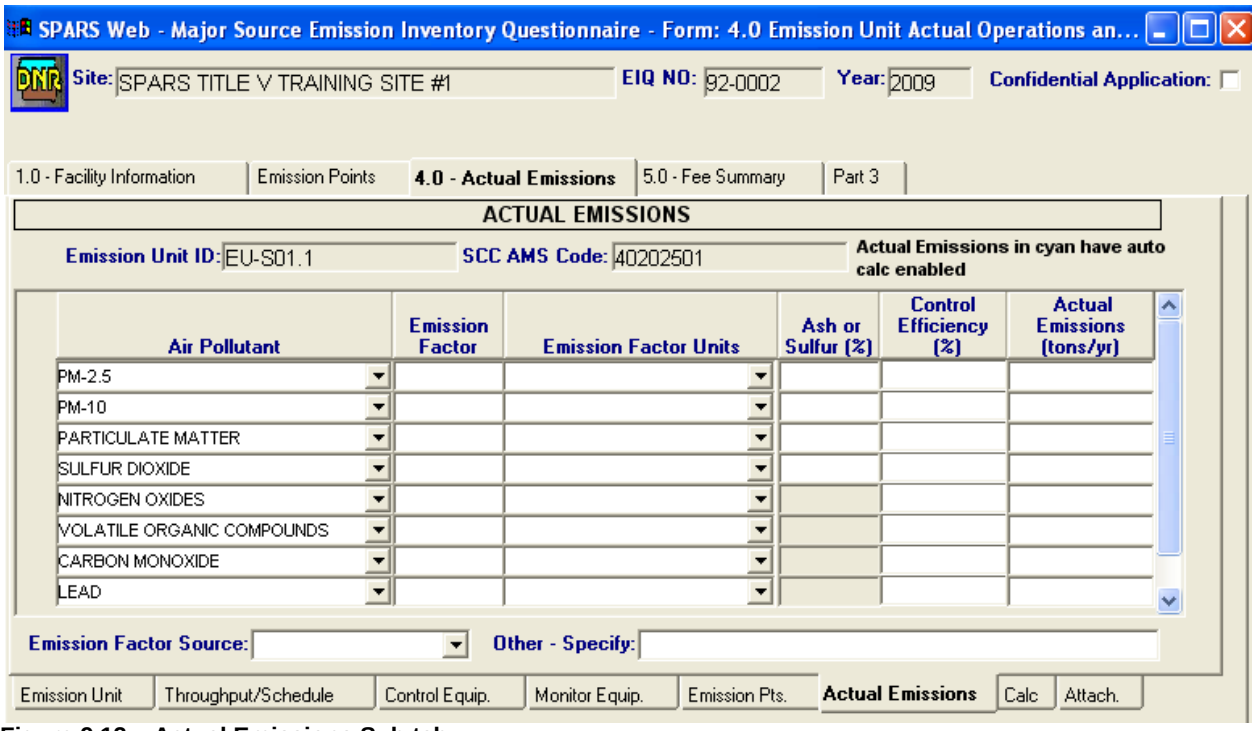


Figure 9.12 – Actual Emissions Sub tab.

7. Enter all the required information, such as emission factor, emission factor unit, source of emission factor, actual emissions (if SPARS does not auto-calculate), etc. for each applicable pollutant. Save these updates.

> **NOTE**: The auto-calculation tool will not work if:
>
> 1. The yearly throughput unit of measure is not comparable with the emission factor unit of measure.
> 2. The source of the emission factor was not entered.
> 3. The source of the emission factor was one of these: Permit, Other, or CEM.

The *Auto-Calculation Disclaimer* shown in Figure 9.13 appears every time auto-calculation is performed. If you do not wish to see this window popping up after every auto-calculation, unclick the **Show message for each auto calculation performed** box.

8. Use the **Calc** sub tab to document emission values associated with any applicable pollutant reported in the current inventory. This information will be included in the **CA-01 Form**. Save these updates.

9. Repeat Steps 3 through 8 for all the remaining emission units and processes.

> **NOTE**: If an emission unit or process still present at your facility did not operate during the *entire* Inventory Year, ***do not remove from the inventory***. Enter a throughput of "*zero*," instead.

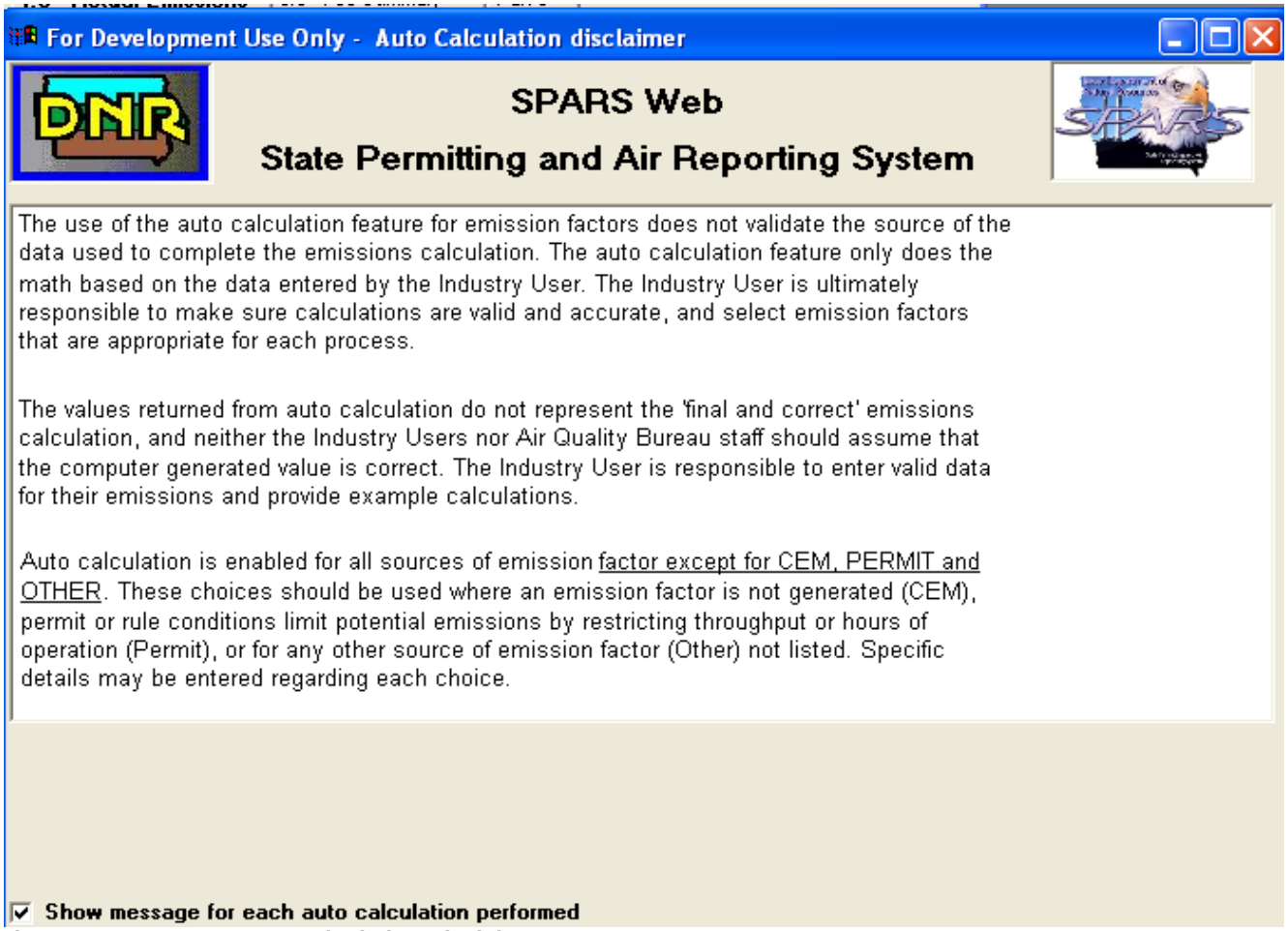


Figure 9.13 – SPARS Auto-Calculation Disclaimer

9.1.5 Summing Up Total Emissions from your Facility - Form 5.0 Fee Summary

1. Click the **5.0 – Fee Summary** tab.

2. Under the **Submission Type** sub tab, check **(a) Annual Emissions Summary**.

3. Click the **Actual Emissions** sub tab.

4. Click the **Update Totals from 4.0** button. A summary of the total emissions per pollutant will appear (see Figure 9.14).

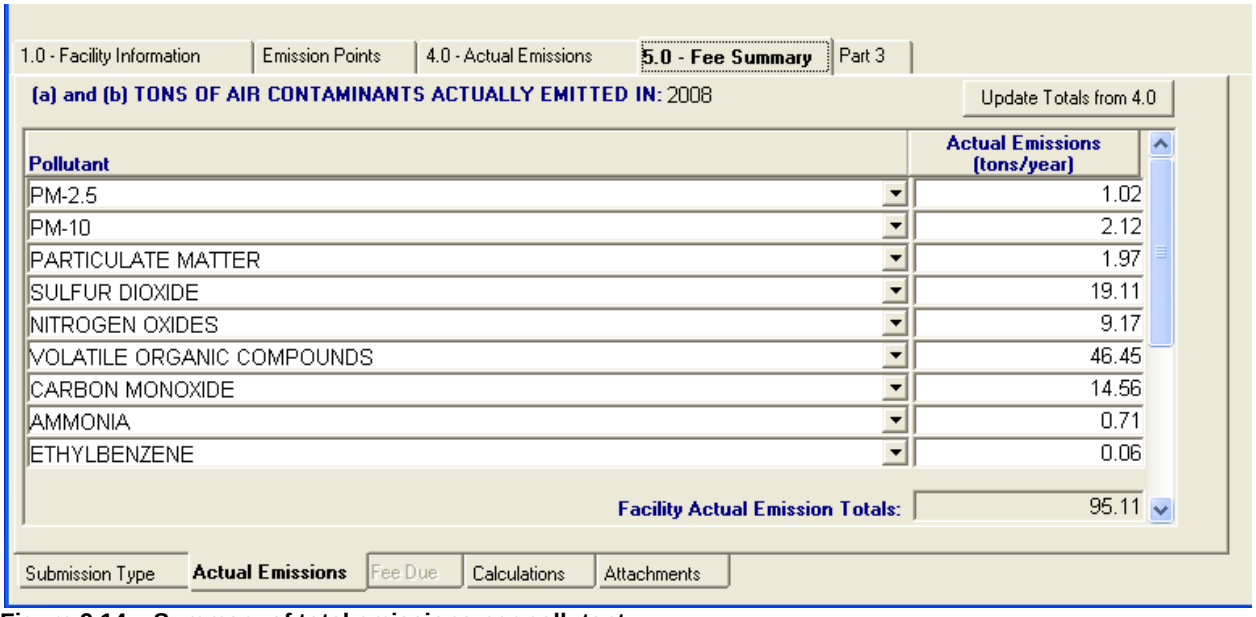


Figure 9.14 – Summary of total emissions per pollutant

> **IMPORTANT**: *If you make any changes to Form 4.0* ***after*** *pulling the summary in Form 5.0, you must return to Form 5.0 to pull a new summary by clicking the* ***Update Totals from 4.0*** *button again*.

5. Subtract HAPs which are included in the VOC and PM_{10} totals. To do this, add all the individual pollutants that are VOC HAPs. Right click under the **Pollutant** list and add "VOC HAP TOTAL." Enter the total VOC HAP as a negative number. For PM HAP, add all the individual pollutants that are PM HAPs. Right click under the **Pollutant** list and add "PM HAP TOTAL." Enter the total PM HAP as a negative number (see Figure 9.15). Save these updates.

6. Use the **Calculations** sub tab to document emission values associated with any applicable pollutant reported in the current inventory. This information will be included in the **CA-01 Form**. Save these updates.

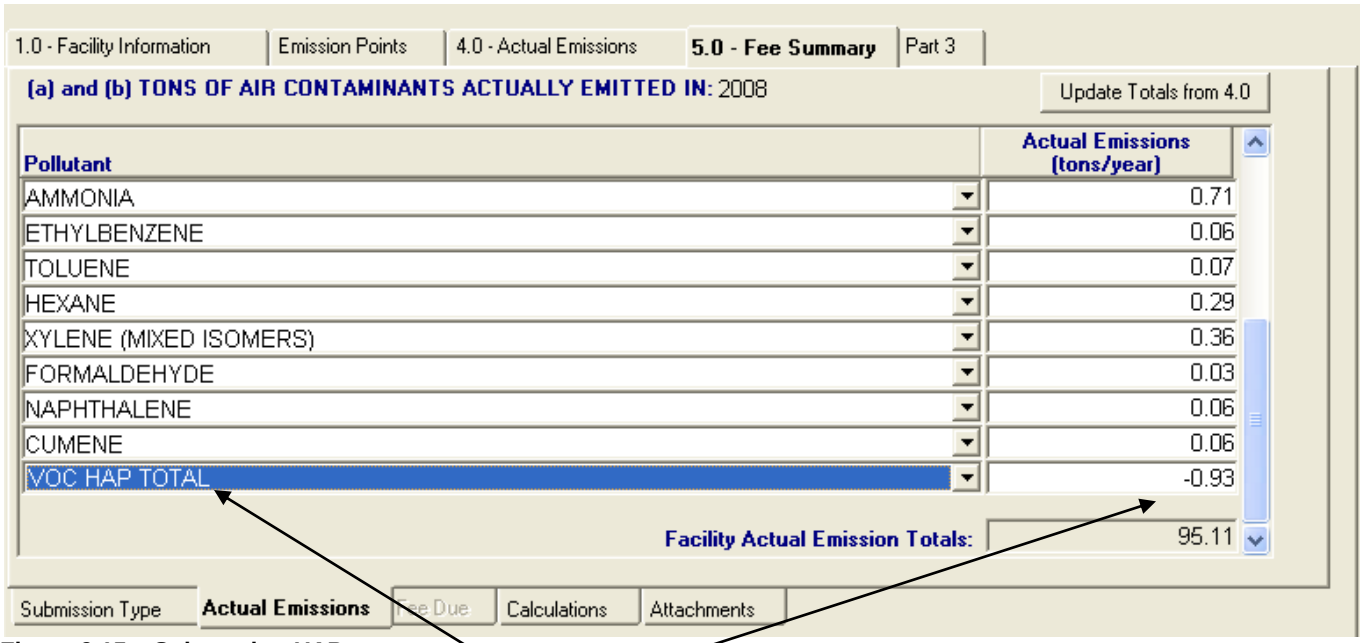


Figure 9.15 – Subtracting HAPs

Subtracting VOC HAPs.

9.1.6 Finalizing the Inventory – Part 3: Application Certification

Each Title V emissions inventory submitted without appropriate signature will not be considered to be complete.

To complete Part 3 of the inventory:

1. Click the **Part 3** tab.

2. Click the **Application Contents** tab and check the appropriate boxes (see Figure 9.16). Save these changes.

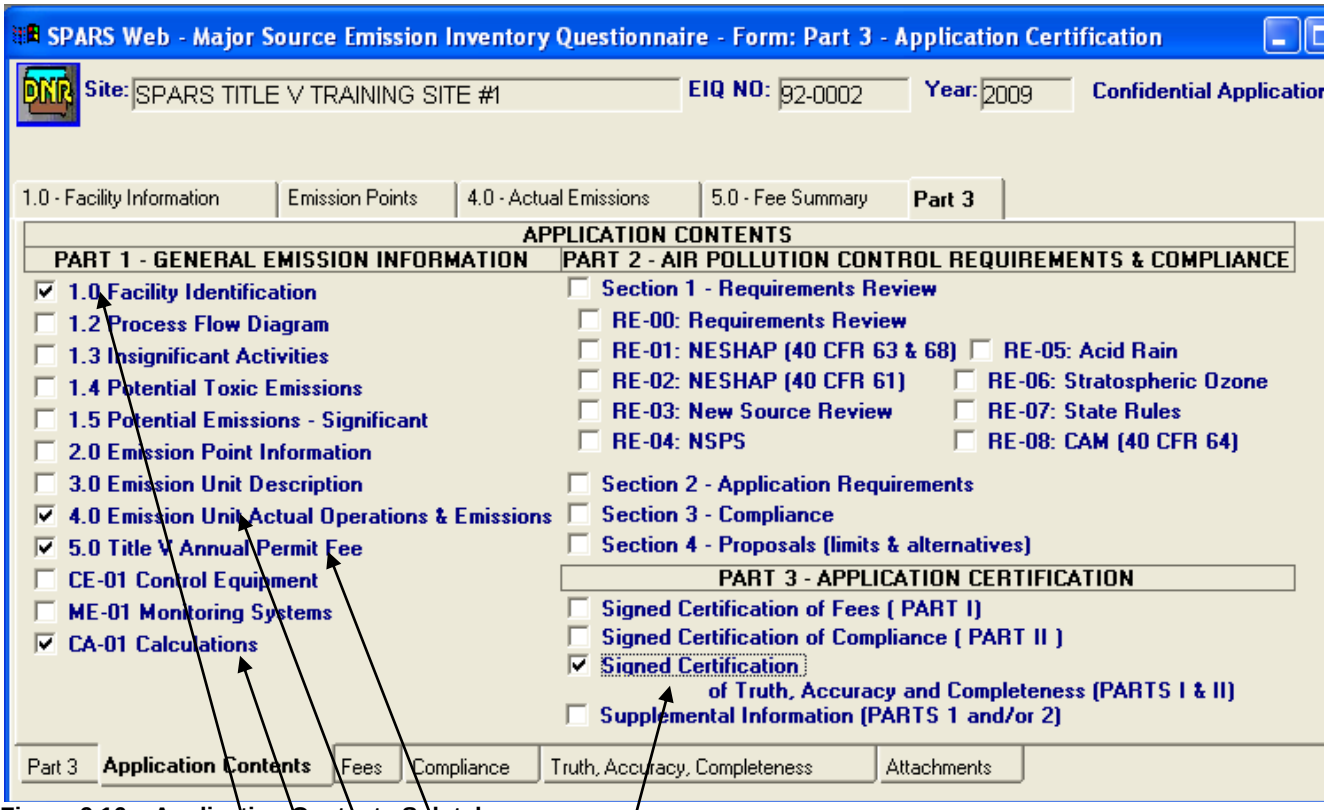


Figure 9.16 – Application Contents Sub tab.

The contents of the inventory include: *1.0 Facility Identification*, *4.0 Emission Unit Actual Operations & Emissions*, *5.0 Title V Annual Permit Fee*, *CA-01 Calculations*, and *Signed Certification of Truth, Accuracy, and Completeness*.

If you are ready to review the inventory by using the SPARS print-preview feature, go to Chapter 10. Otherwise, click the X on the top right corner to close the inventory.

9.2 Completing an Inventory created from a Previous Inventory

The process of completing an inventory created from a previous inventory is described below, but first, you must find the inventory you created. To do this, refer to Chapter 7.0 "Querying using the Application Query Tool."

9.2.1 Updating Form 1.0: Facility Identification

1. On the **1.0 - Facility Information** tab, do the following:
   - Under "**Permit Application Type:**" check the **Annual Emissions/Fee** box.
   - Under "**Application Includes:**" check **Part 1** and **Part 3** boxes.

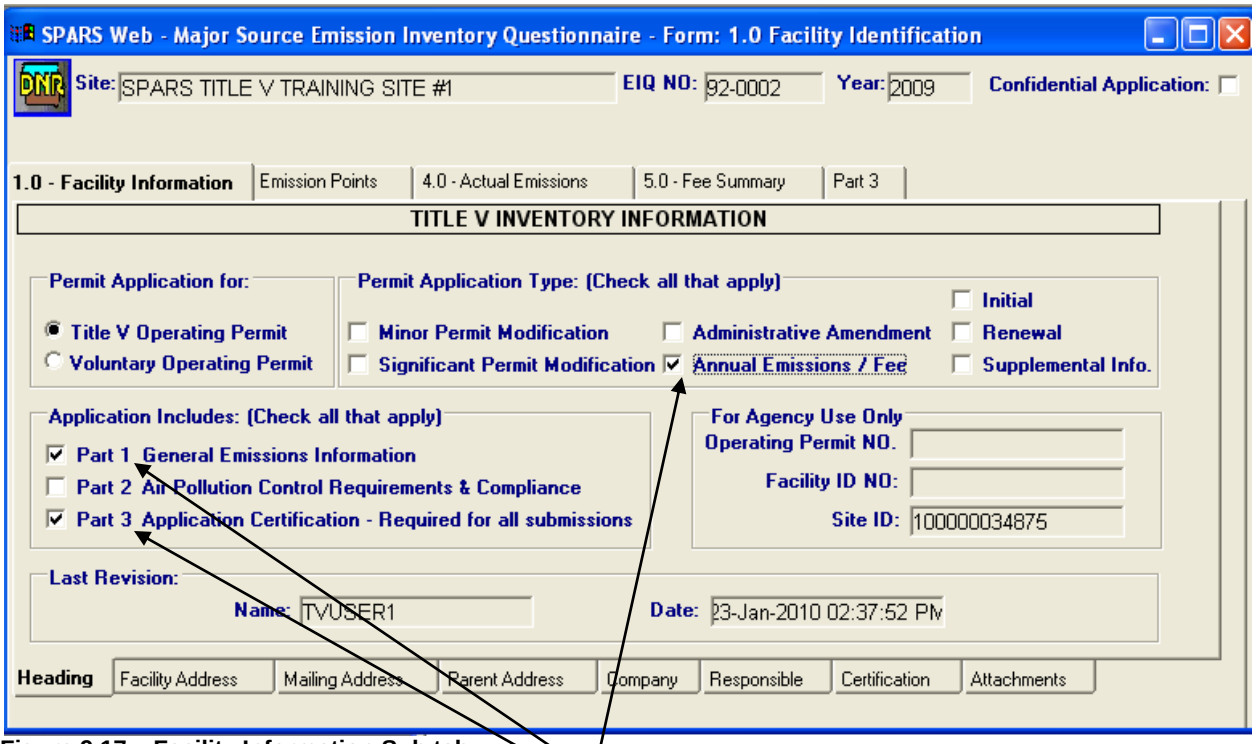


Figure 9.17 – Facility Information Sub tab.

2. Update **Form 1.0** with any new information regarding contacts, addresses, and other information that is not updated through Site Management screens. Save any changes by either clicking  on the top left or by clicking **File** and choosing "**Save**." When saving, if asked to use this information as default information when creating future forms, click **YES** (see Figure 9.18).

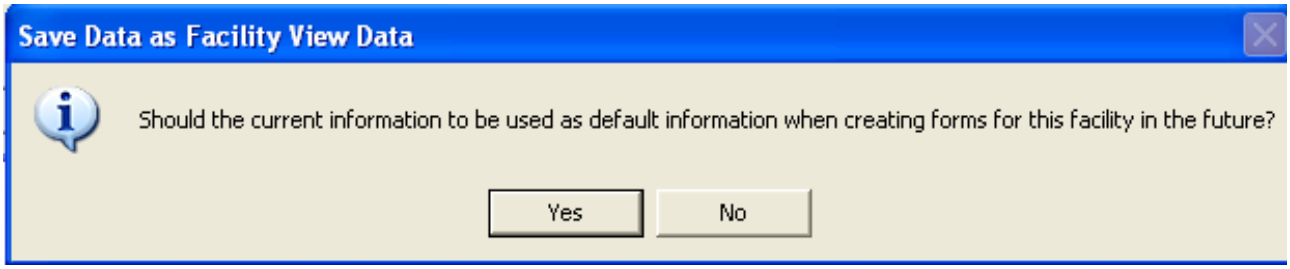


Figure 9.18 – Current Information to be used as Default

3. Attach any and all documents to the **Attachments** sub tab of **Form 1.0** by clicking the **Add** button (see Figure 9.19). Enter a description, save, and **view** each document (to ensure it was actually attached to SPARS). To make changes to documents already attached to SPARS, you must:

e. Remove these documents from SPARS Web.
f. Make changes to original documents and save to your network or computer.
g. Re-attach modified documents to SPARS Web.
h. Enter a description, save, and view each modified document.

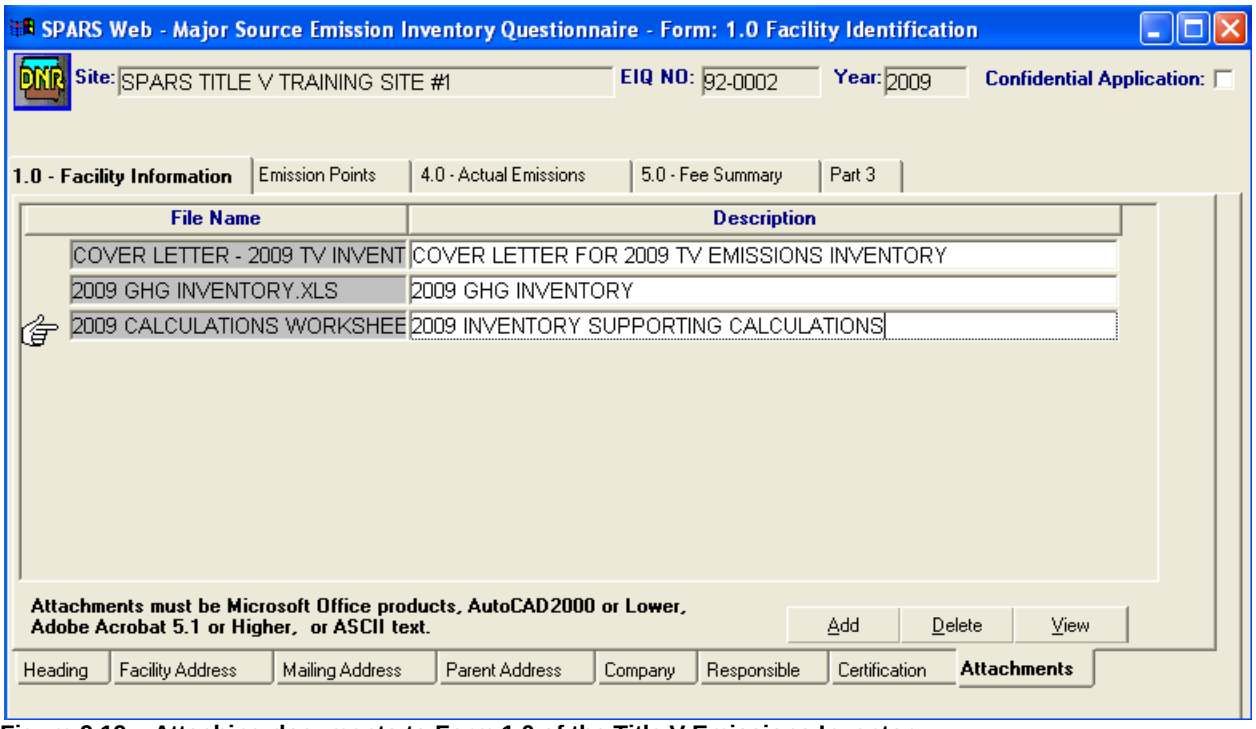


Figure 9.19 – Attaching documents to Form 1.0 of the Title V Emissions Inventory

9.2.2 Working with the Emission Points Tab

The **Emission Points** Tab allows you to bring into the current inventory any new equipment added to Site Management.

In Chapter 6, we added a new piece of control equipment, a new emission unit, and a new emission point. This section will show how to add these to the new inventory.

Figure 9.20 shows that even though the new emission point was added to Site Management, it **is not** automatically added to the new inventory when this is created from a previous inventory. This is because the previous inventory did not include the emission point in question.

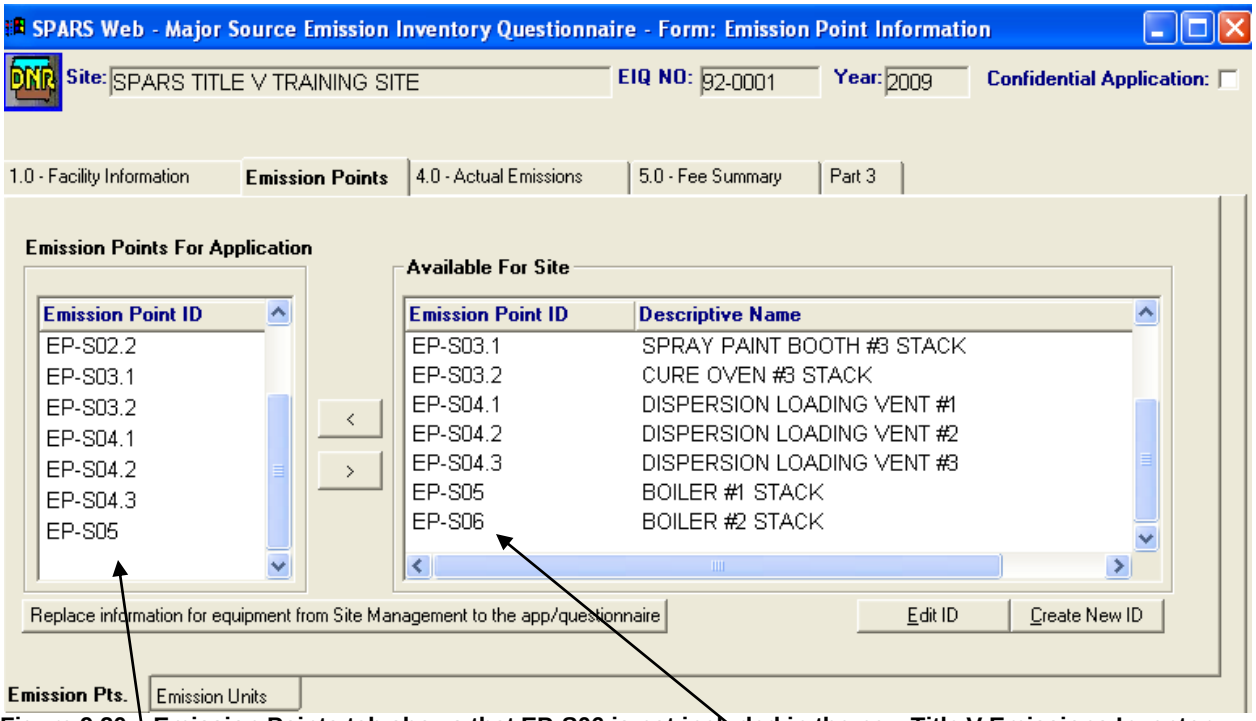


Figure 9.20 – Emission Points tab shows that EP-S06 is not included in the new Title V Emissions Inventory.

EP-S06 is not included in the new inventory.

EP-S06 is in Site Management

Add ad new emission point and its associated emission units/processes to the new inventory as follows:

1. Move the new emission point from right to left using the Left Arrow (see Figure 9.21).

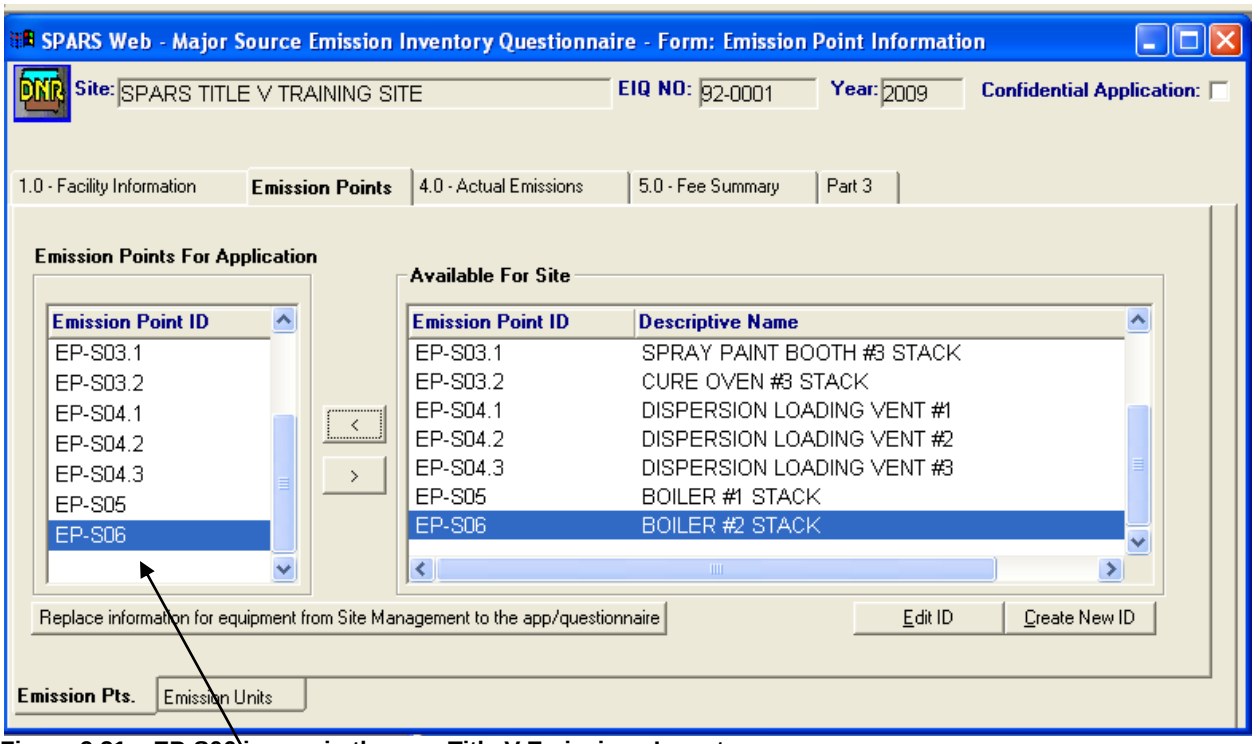


Figure 9.21 – EP-S06 is now in the new Title V Emissions Inventory.

EP-S06 was moved from right to left and it is now in the new inventory.

2. To bring into the inventory all emission units and process associated with the selected emission point, click on the **Emission Unit** sub tab. From this screen click on the long **Select an EU and Create a Record for Each SCC AMS Code** button.

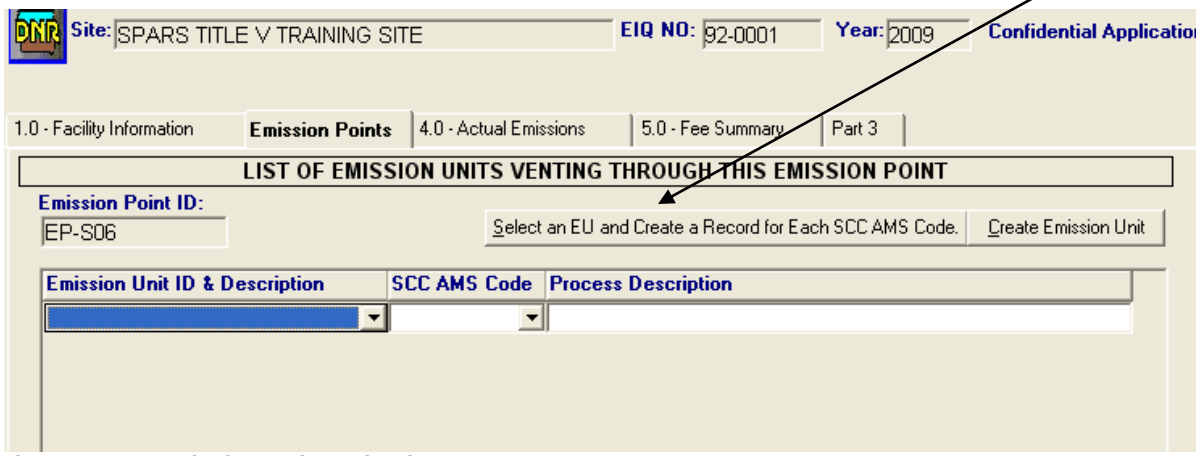


Figure 9.22 – Emission Units Sub tab.

3. A popup window will appear with a list of emission units (see Figure 9.23). Select one or more units connected to the emission point in question and click the **OK** button.

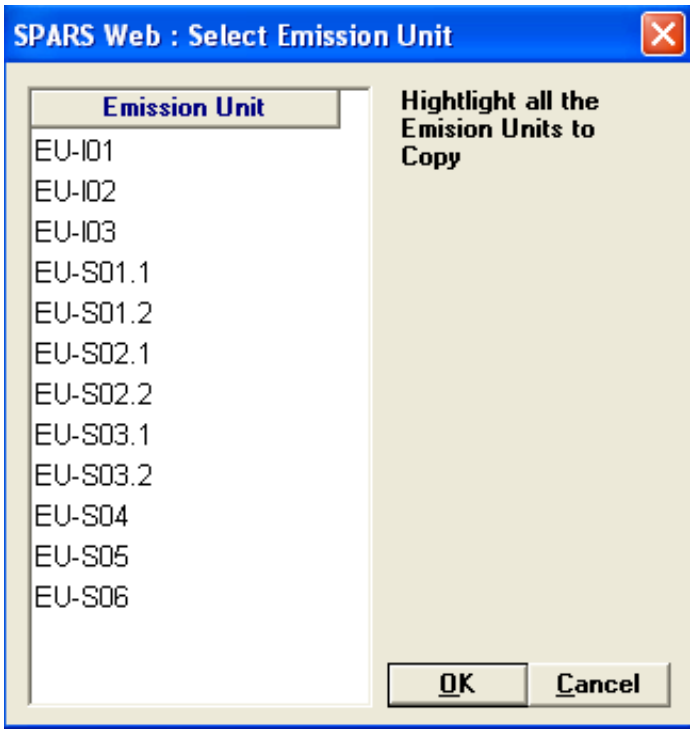


Figure 9.23 – Emission Unit List

The emission unit(s) connected to the emission point will show up on the screen with SCC numbers and process descriptions (see Figure 9.24).

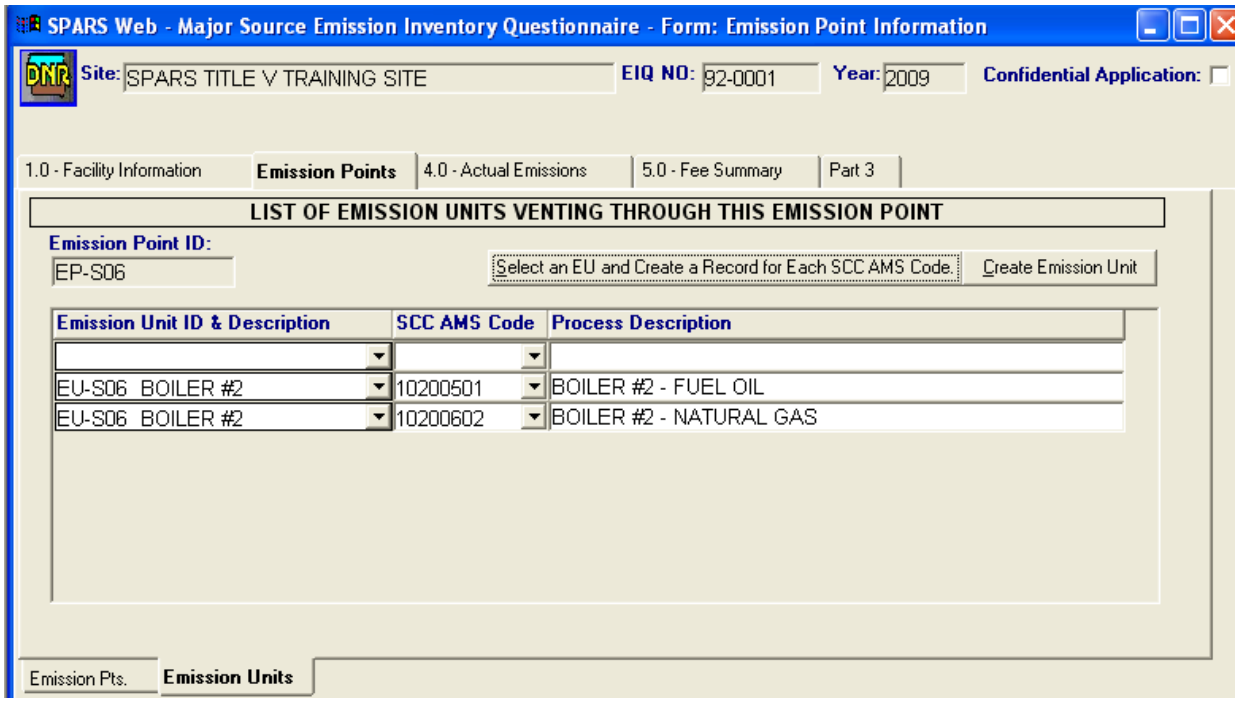


Figure 9.24 – Processes associated with the new emission point are now in the inventory.

The process or processes are now in the inventory, ***but they are not accessible to Form 4.0 yet***. To make the new process or processes available in Form 4.0, do the following:

4. Click the **Actual Emissions** tab.

5. Click the **Add EU Processes** button (see Figure 9.25).

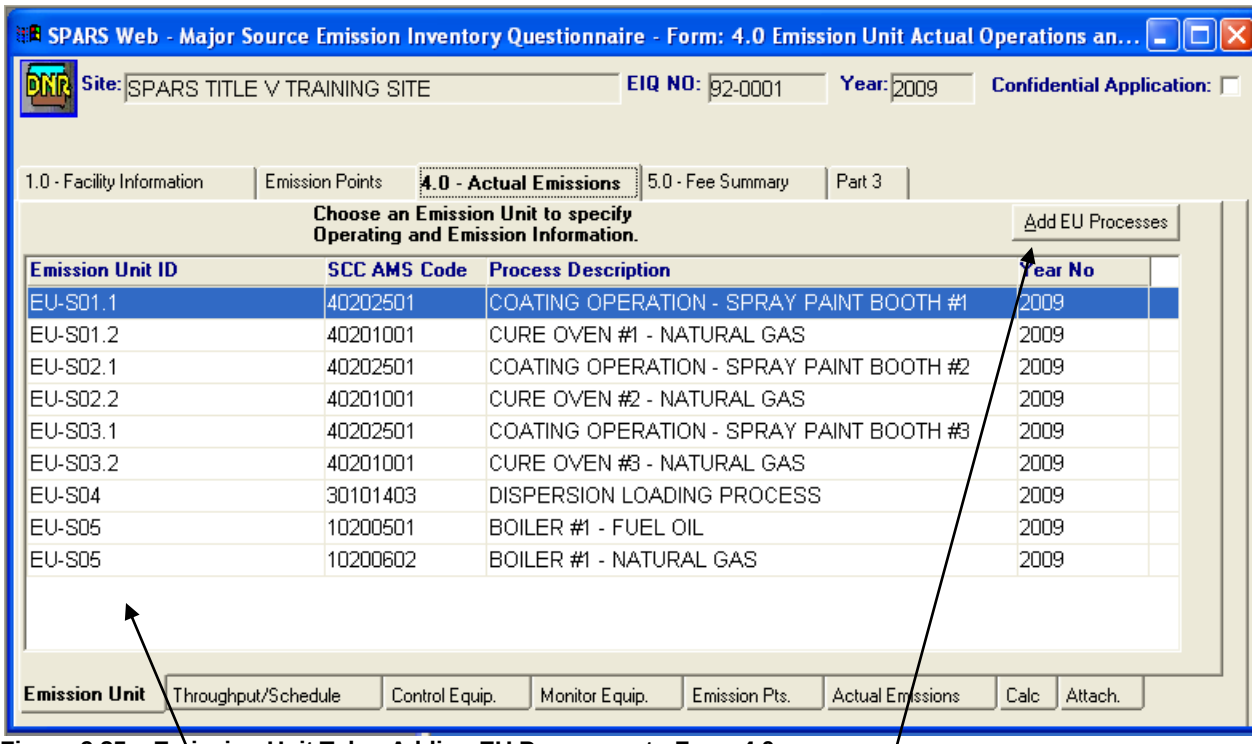


Figure 9.25 – Emission Unit Tab – Adding EU Processes to Form 4.0.

Note that EU-S06 processes are not yet displayed on this window.

Click the **Add EU Processes** button to bring new processes to Form 4.0

6. A window opens with a list of processes included in the inventory. Find the new processes at the bottom of this list (see Figure 9.26).

7. Highlight the processes to be brought into Form 4.0 (one at a time or use the Shift or Ctrl key to highlight more than one).

8. Click the **X** at the top right corner. You must close this window to allow the new process to appear on the **4.0 – Actual Emissions** window (see Figure 9.27).

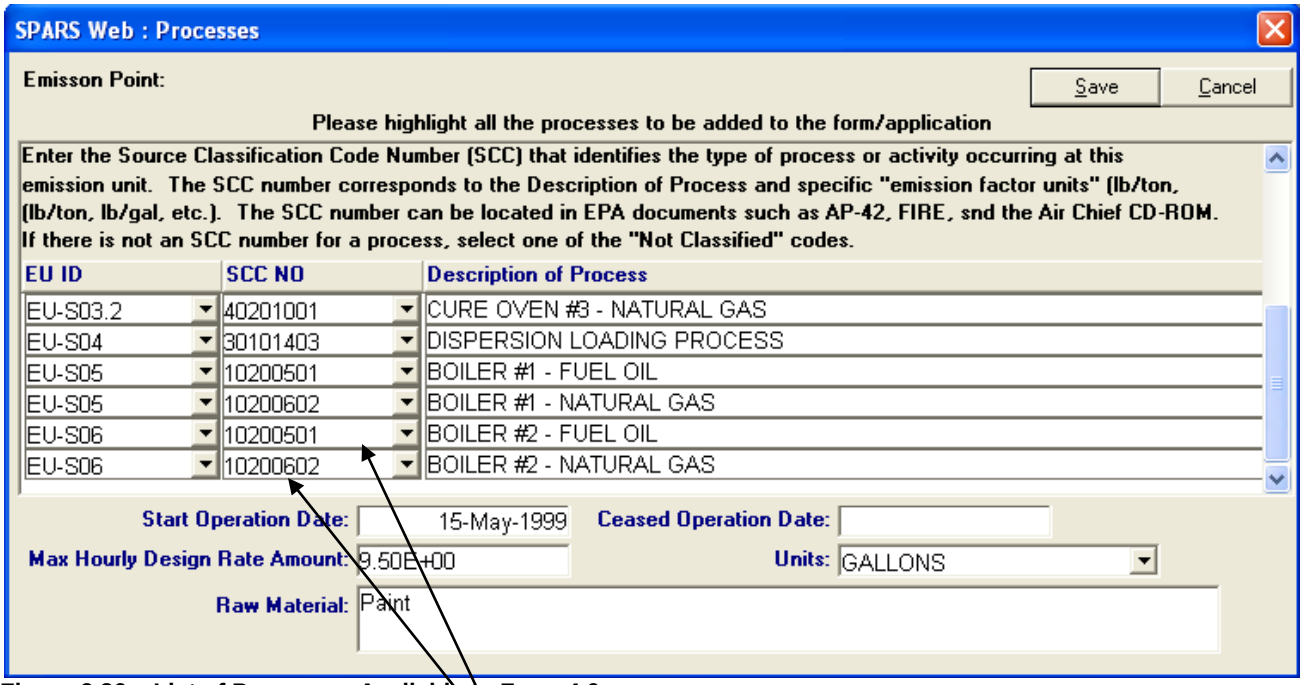


Figure 9.26 – List of Processes Available to Form 4.0

New processes brought into the inventory through the **Emission Points** tab.

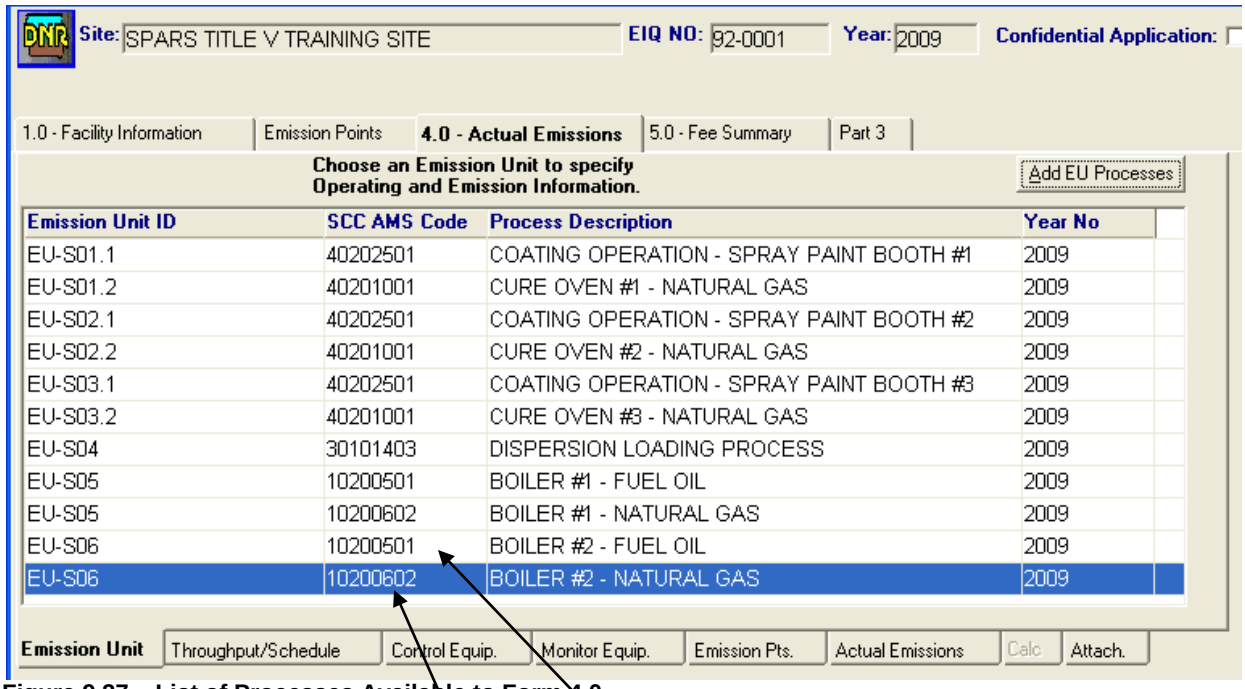


Figure 9.27 – List of Processes Available to Form 4.0

Note that EU-S06 processes are now displayed on this window.

9.2.3 Removing Equipment and Processes from the Inventory

Equipment that was decommissioned prior to the Inventory Year should be removed from the new inventory, ***but not from Site Management***. As indicated before, Site Management keeps an inventory of past and present units, points, control equipment, and monitoring equipment. Deleting or modifying these, will affect previously submitted applications and inventories.

Therefore, **never** delete these from Site Management, even when one or more of them are no longer in operation at your facility. Instead, enter a cease operation date in the appropriate Site Management fields. If the equipment ID needs to be modified, please contact us.

To remove equipment and processes from the current inventory:

1. Click the **4.0 – Actual Emissions** tab.

2. Highlight the emission unit/process to be removed.

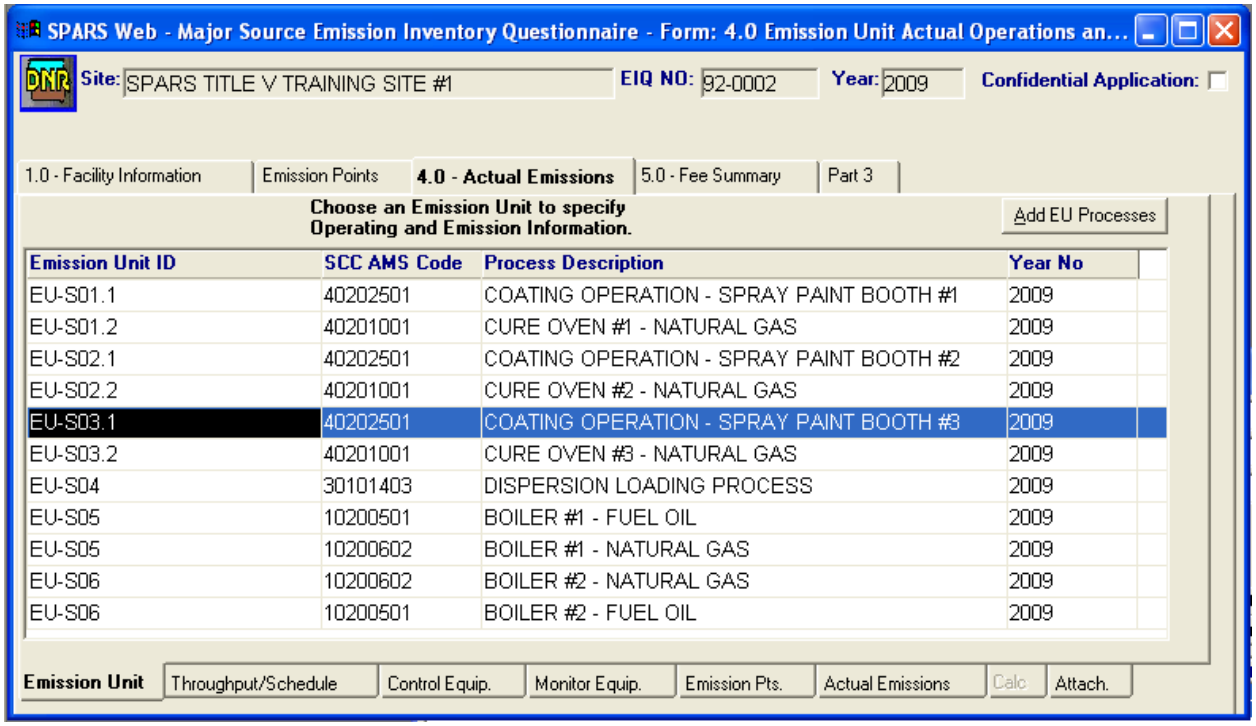


Figure 9.28 – EU-S03.1 was dismantled prior to the Inventory Year; therefore, it will be removed from the current inventory.

3. Click the **Emission Pts**. sub tab and move from left to right the emission point connected to the emission unit/process to be removed.

4. If monitoring equipment is connected to the emission unit/process to be removed, click the **Monitor Equip.** sub tab and then move from left to right the appropriate monitoring equipment.

5. If control equipment is connected to the emission unit/process to be removed, click the **Control Equip.** sub tab and then move from left to right the appropriate control equipment.

6. Go back to the **Emission Unit** sub tab. Make sure that the emission unit/process to be removed is highlighted. Right click and select “Delete” to remove the emission unit/process from the inventory (see Figure 9.29).

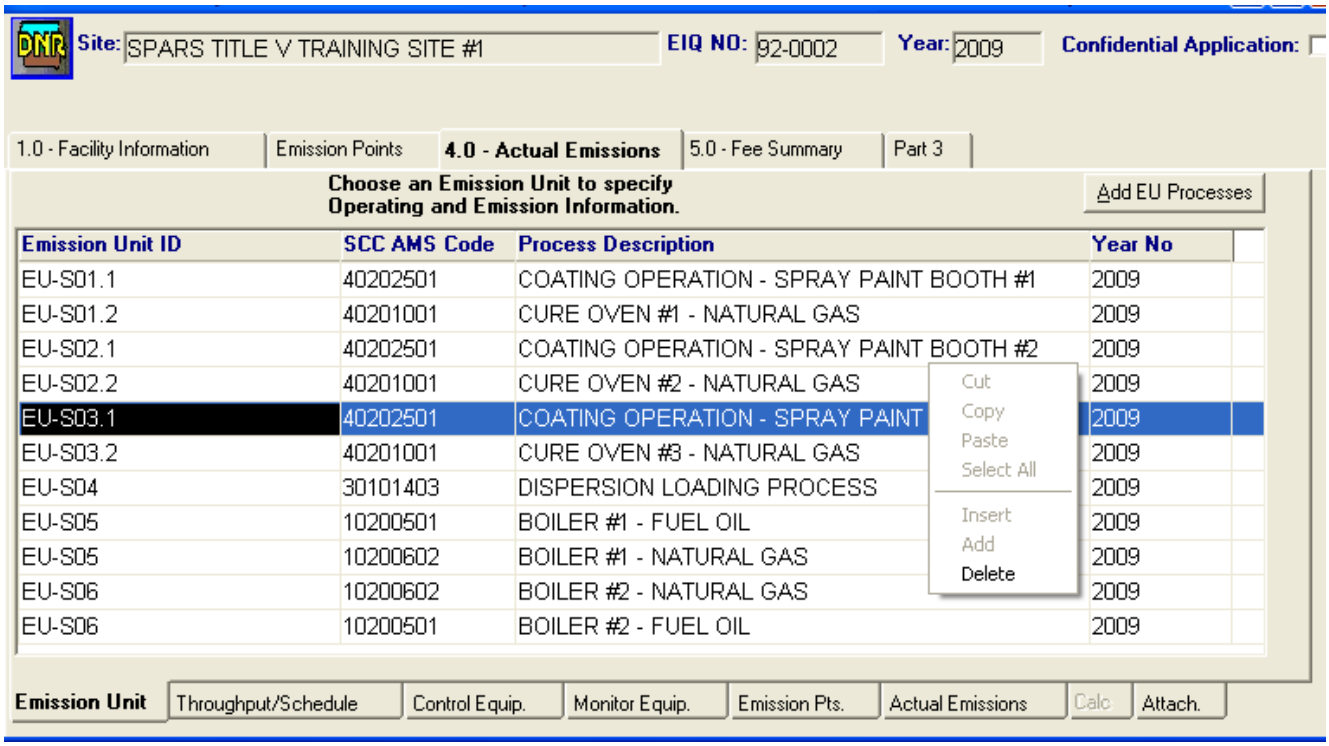


Figure 9.29 – Deleting EU-S03.1 from the current inventory.

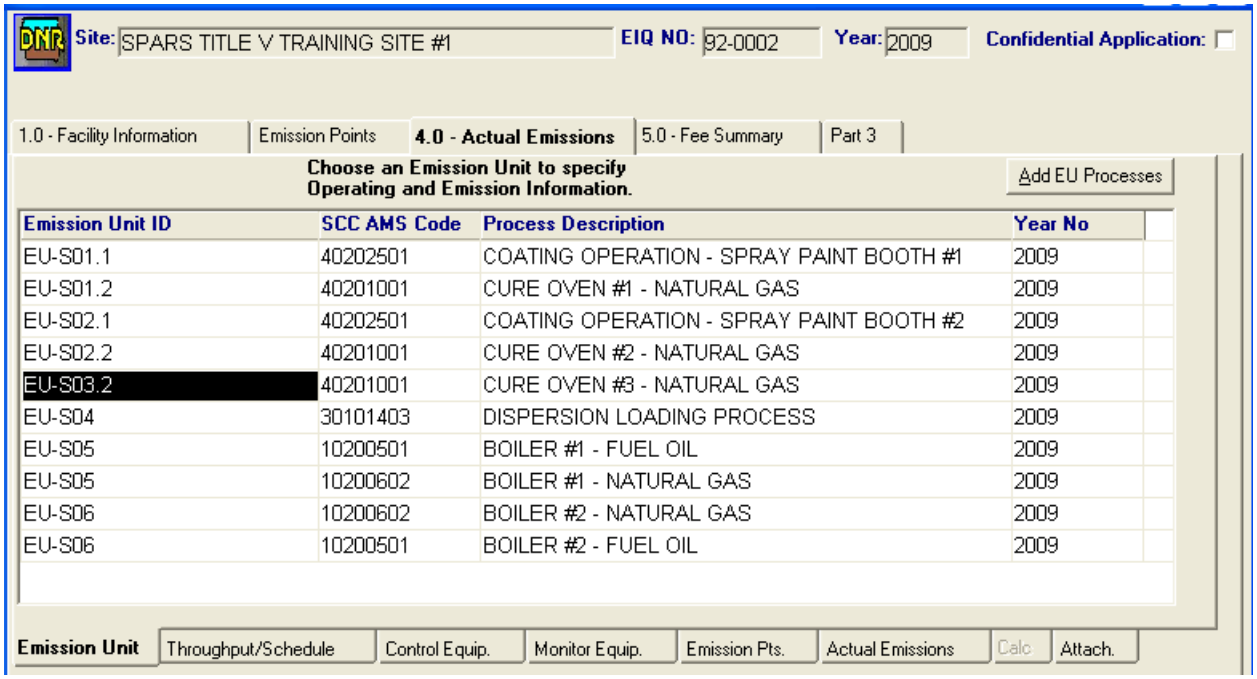


Figure 9.30 – EU-S03.1 is gone from the current inventory.

7***. IMPORTANT***: Refresh the inventory by clicking the **X** on the top right corner.

9.2.4 Completing Form 4.0 Emission Unit – Actual Operations & Emissions

1. Open the inventory that you are working on. It must be in the INDUSTRY Phase.

2. Click the **4.0 – Actual Emissions** tab.

3. Highlight an emission unit process and click the **Throughput/Schedule** sub tab.

4. Depending on how the process operated during the Inventory Year, do one of the following:

   - ✓ If the process operated during the Inventory Year as it did during the year prior to the Inventory Year, enter the **Yearly Total Amount** on the **Throughput/Schedule** sub tab. See Figure 9.31.

   - ✓ If the operating schedule for the process during the Inventory Year was different from its operating schedule during the year prior to the Inventory Year, enter the **Yearly Total Amount**, and update the **Actual Operating Rate/Schedule** on the **Throughput/Schedule** sub tab. See Figure 9.32.

   - ✓ If the process did not operate or if it was decommissioned but remained at your facility during the Inventory Year, enter "zero" in the **Yearly Total Amount** field and update the **Actual Operating Rate/Schedule** on the **Throughput/Schedule** sub tab. See Figure 9.33.

   - ✓ If the process is new, that is, it was not included in the previous inventory; you must populate all the fields on the **Throughput/Schedule** sub tab. See Figure 9.34.

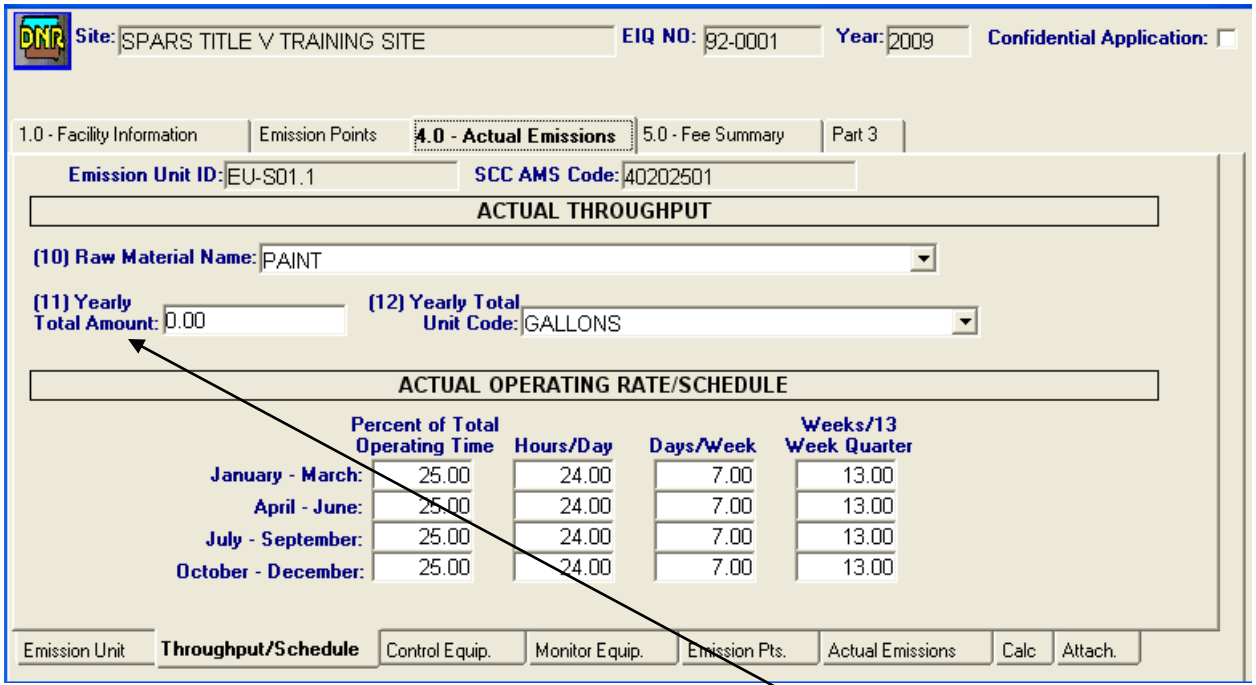


Figure 9.31 – Process operated as the year prior to the Inventory Year.

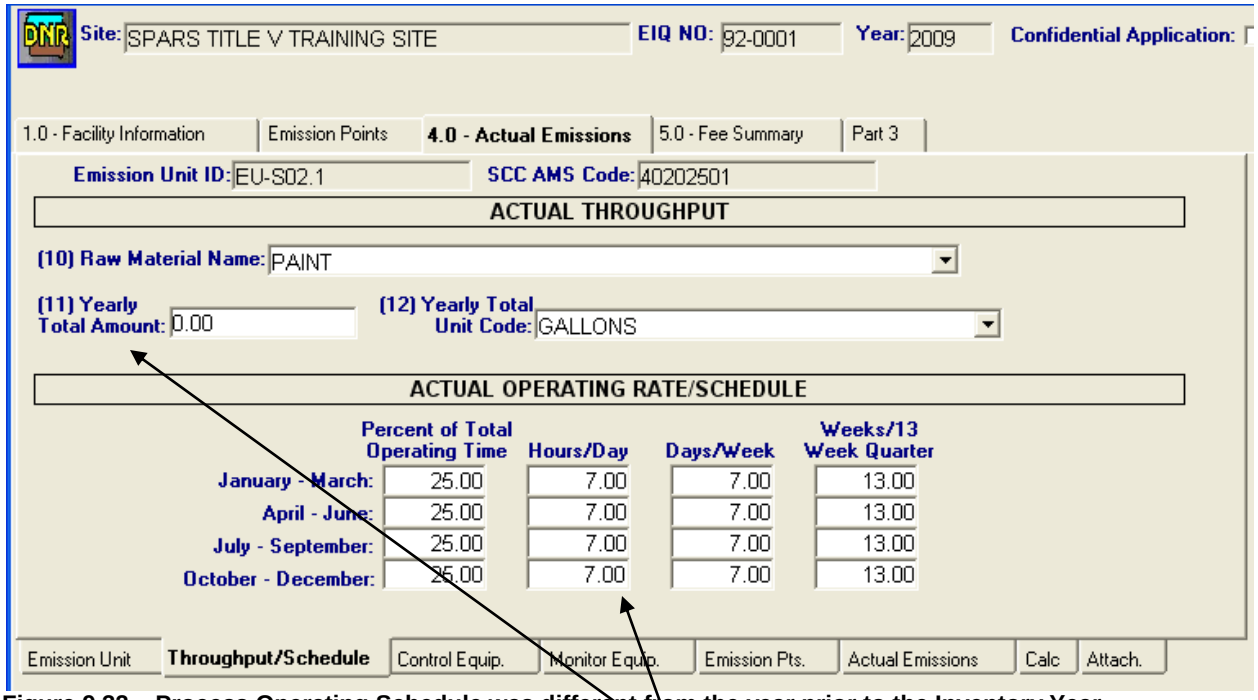


Figure 9.32 – Process Operating Schedule was different from the year prior to the Inventory Year.

This process operated 24 hours per day during the year prior to the Inventory Year; whereas during the Inventory Year, it operated 7 hours per day. The **Actual Operating Rate/Schedule** must be updated in addition to entering the **Yearly Total Amount**.

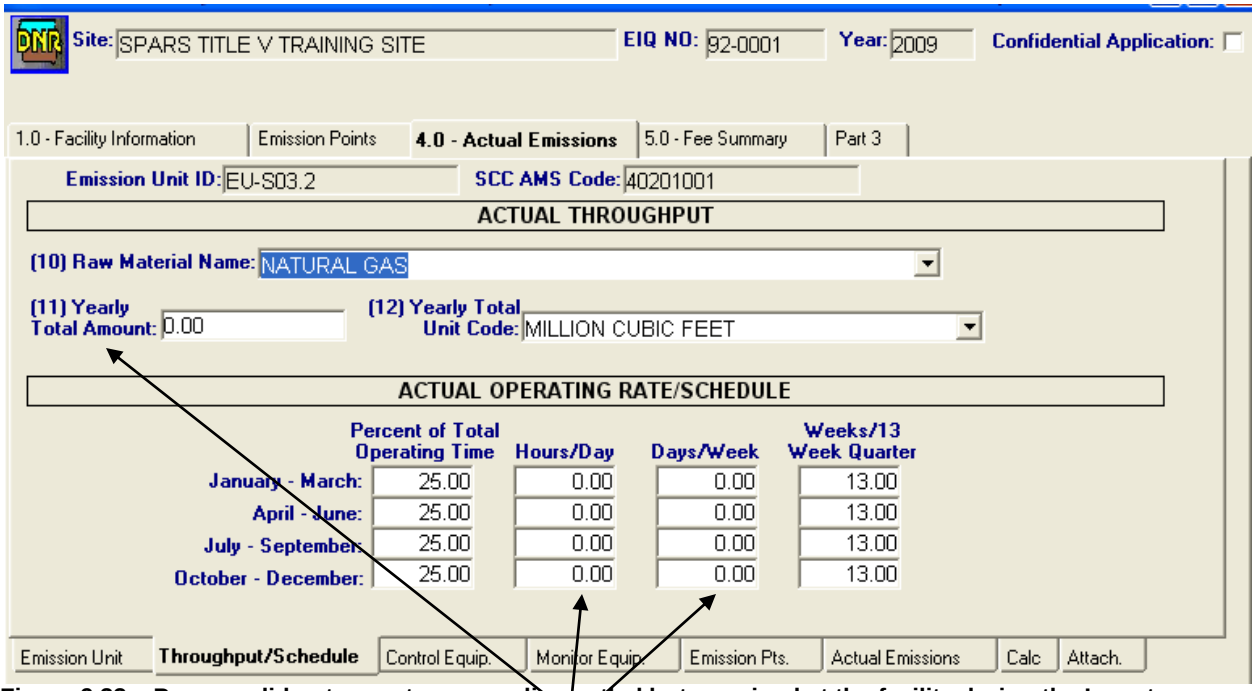


Figure 9.33 – Process did not operate or was dismantled but remained at the facility during the Inventory Year.

This process did not operate or was decommissioned but remained at the facility, the **Hours/Day**, the **Days/Week**, and the **Yearly Total Amount** are all "zero."

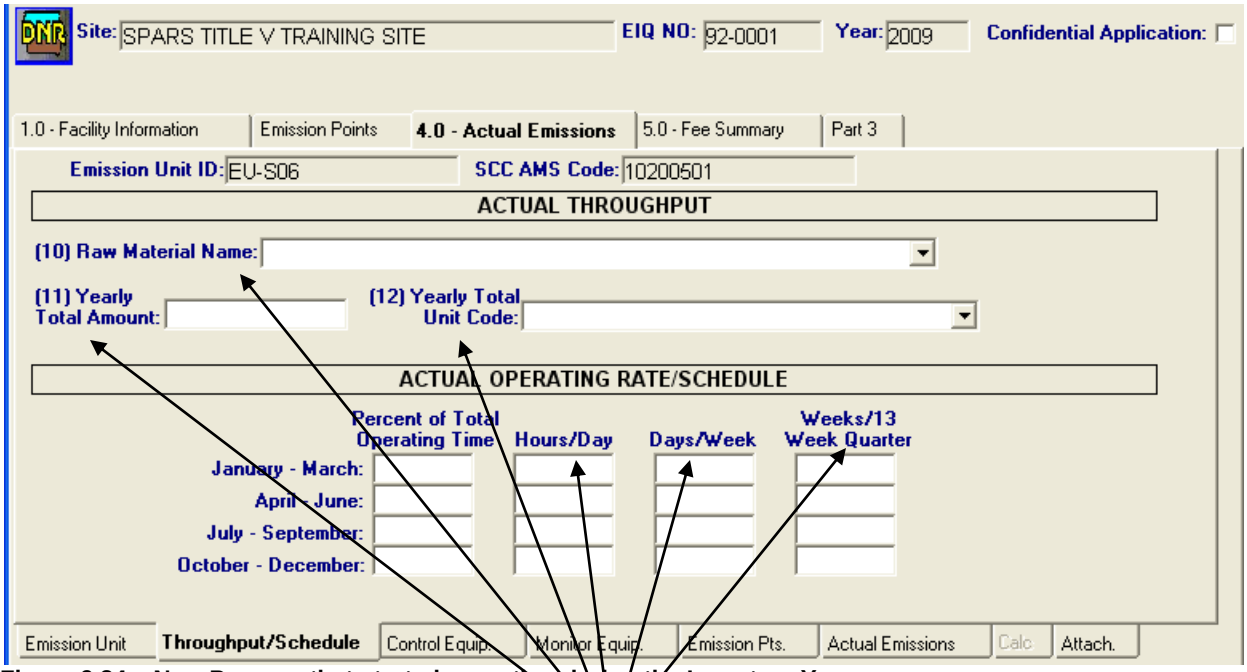


Figure 9.34 – New Process that started operation during the Inventory Year.

Since this new process was not included in the previous inventory, all fields are empty and must be completed.

Every time that you enter the **Yearly Total Amount** for a process copied from the previous inventory, the *Auto-Calculation Disclaimer* shown in Figure 9.35 is presented to you **if** the SPARS auto-calculation feature was used in the previous inventory. If you do not wish to see this window popping up after every auto-calculation, unclick the **Show message for each auto calculation performed** box.

NOTE: The auto-calculation tool will not work if:

1. The yearly throughput unit of measure is not comparable with the emission factor unit of measure.
2. The source of the emission factor was not entered.
3. The source of the emission factor was one of these: Permit, Other, or CEM.

5. Click the **Emission Pts.** sub tab first, then the **Monitor Equip.** sub tab next, and finally the **Control Equip.** sub tab and make sure that these connections are correct. Save any changes to these sub tabs.

6. Click the **Actual Emissions** sub tab. You will notice that for each process copied from the previous inventory, the **Actual Emissions** sub tab is populated with emission factors, emission factor units, control efficiency, etc. You will also notice that emissions will be filled in for pollutants for which the SPARS auto-calculation was used in the previous inventory. See Figure 9.36.

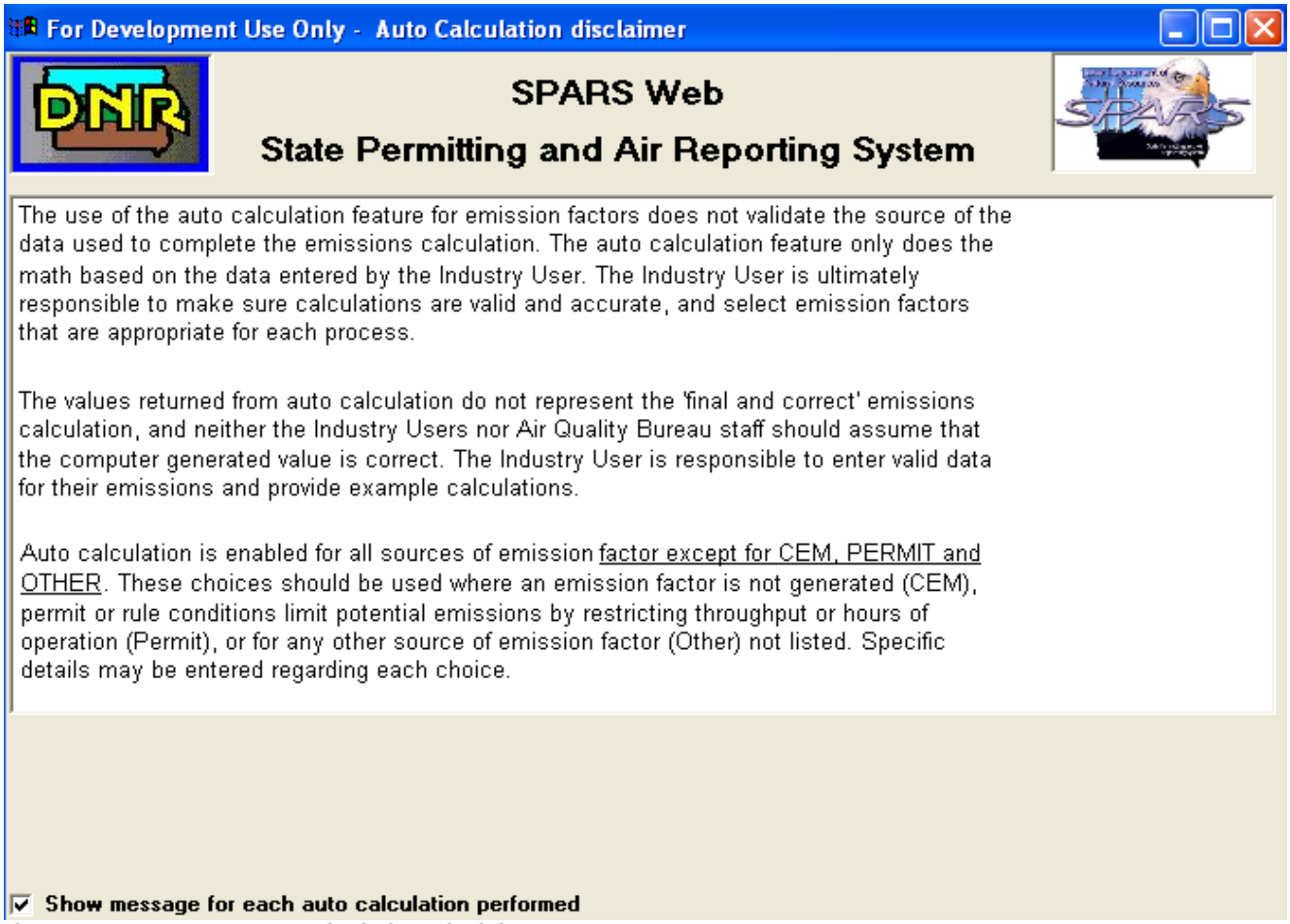


Figure 9.35 – SPARS Auto-Calculation Disclaimer

7. If the previous inventory did not use the SPARS auto-calculation to calculate emissions, you must manually enter these emissions under the **Actual Emissions (tons/yr)** column in the **Actual Emissions** sub tab.

8. Check the actual emissions to ensure that the auto-calculation worked.

9. Use the **Calc** sub tab to document emission values associated with any applicable pollutant reported in the current inventory. This information will be included in the **CA-01 Form**. Save these updates.

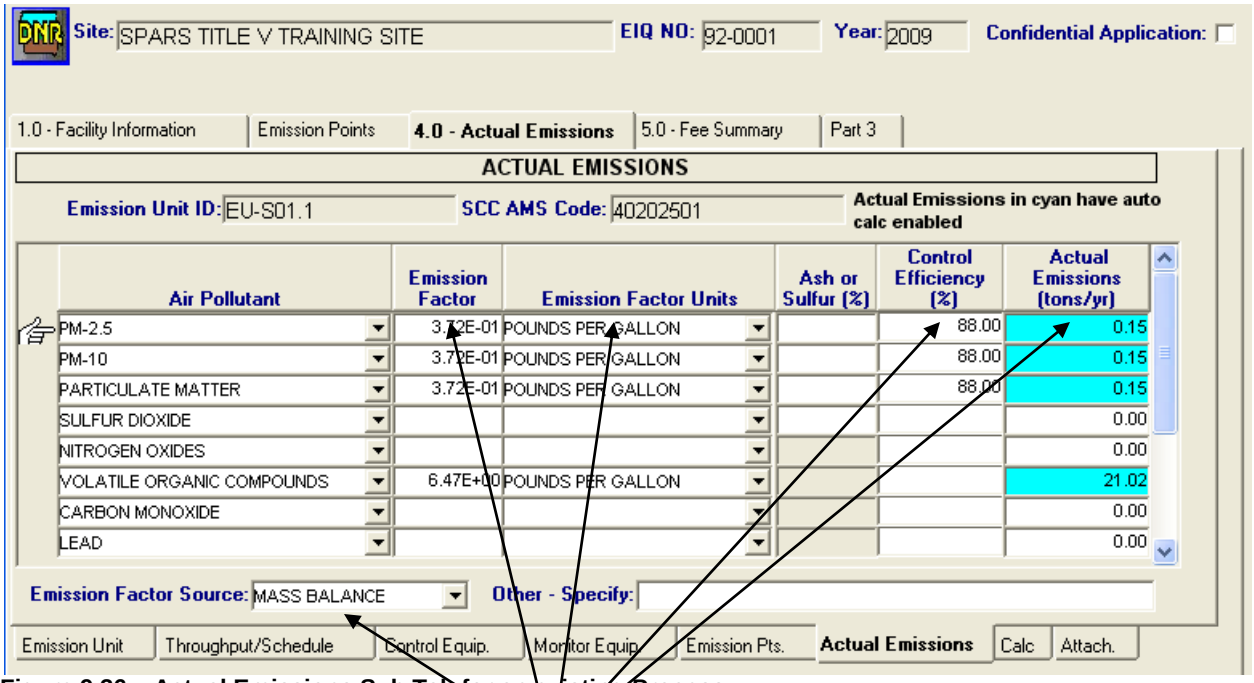


Figure 9.36 – Actual Emissions Sub Tab for an existing Process

Actual Emissions sub tab is populated and emissions calculated for those pollutants with the SPARS auto-calculation feature turned on.

10. For any process that did not operate or was decommissioned by remained at the facility during the Inventory Year, the actual emissions displayed on the Actual Emissions sub tab will be "zero" (see Figure 9.37).

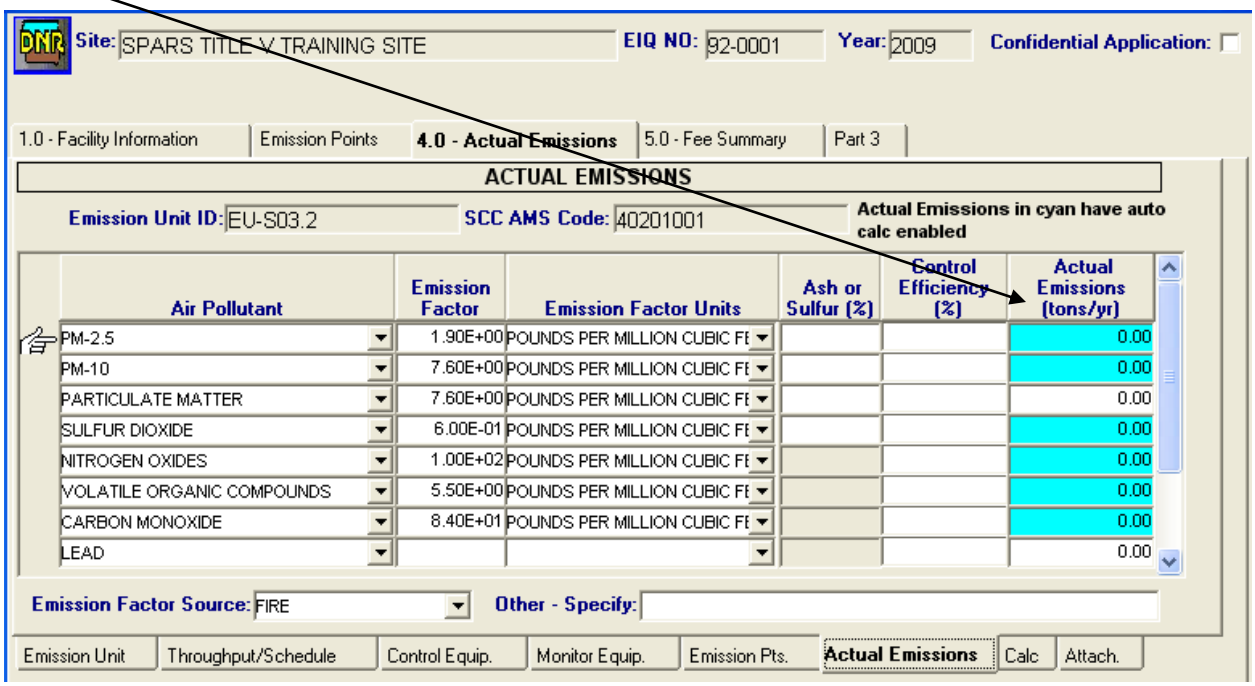


Figure 9.37 – Actual Emissions Sub Tab for an existing Process that did not operate during the Inventory Year.

11. For a new process, enter for each applicable pollutant all the required information, such as emission factor, emission factor unit, source of emission factor, actual emissions (if SPARS does not auto-calculate), etc. (see Figure 9.38).

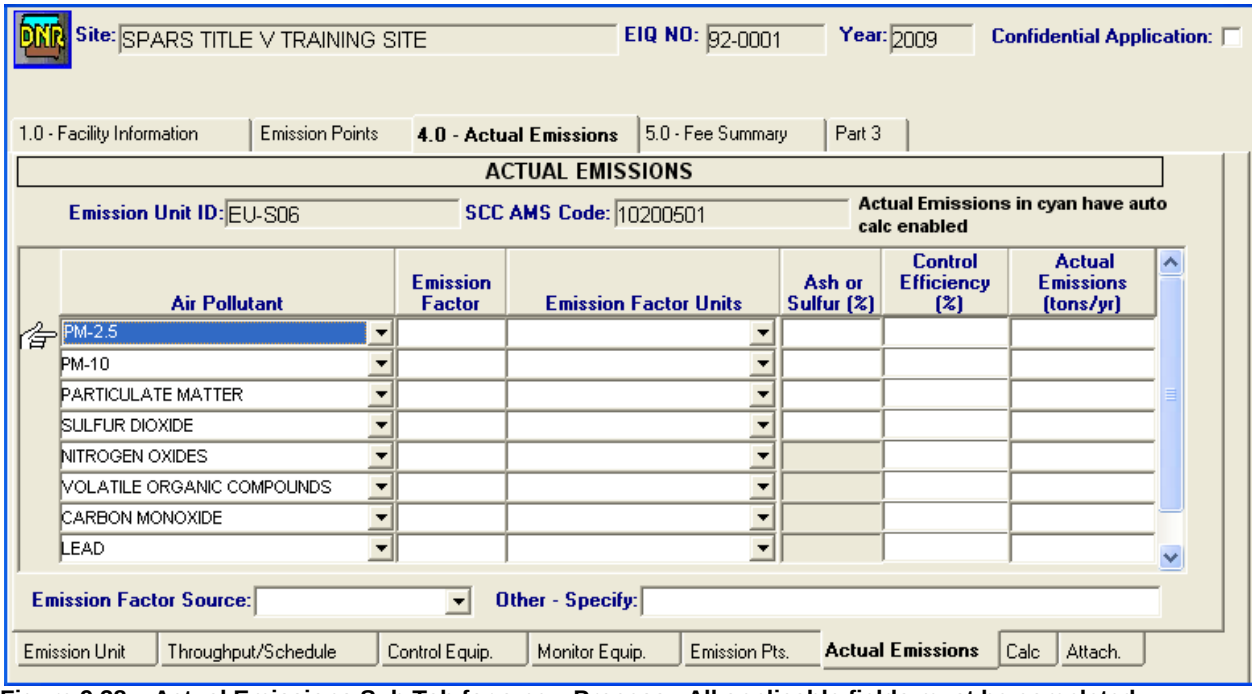


Figure 9.38 – Actual Emissions Sub Tab for a new Process. All applicable fields must be completed.

NOTE: The *Auto-Calculation Disclaimer* shown in Figure 9.35 will again appear every time auto-calculation is performed if you did not unclick the **Show message for each auto calculation performed** box as indicated before.

9.2.5 Removing a Pollutant from Form 4.0

If one or more processes at your facility no longer emit a pollutant, this pollutant should be removed from the inventory. This can be done with all pollutants, *except* for those that are permanently coded into Form 4.0. These are: *PM2.5*, *PM10*, *Particulate Matter*, *Sulfur Dioxide*, *Nitrogen Oxides*, *Volatile Organic Compounds*, *Carbon Monoxide*, *Lead*, and *Ammonia*.

To remove a pollutant:

1. Click the **4.0 – Actual Emissions** tab and highlight the process that no longer emits the pollutant to be removed.

2. Click the **Actual Emissions** sub tab.

3. Click the **Calc** sub tab to delete any entries for the pollutant to be removed.

4. Highlight the pollutant to be removed. Any information in the **Calculation Text** box must be deleted first. To do this, highlight all the information inside the **Calculation Text** box, right click your mouse and choose "**Delete**" (see Figures 9.39 and 9.40). Save these changes.

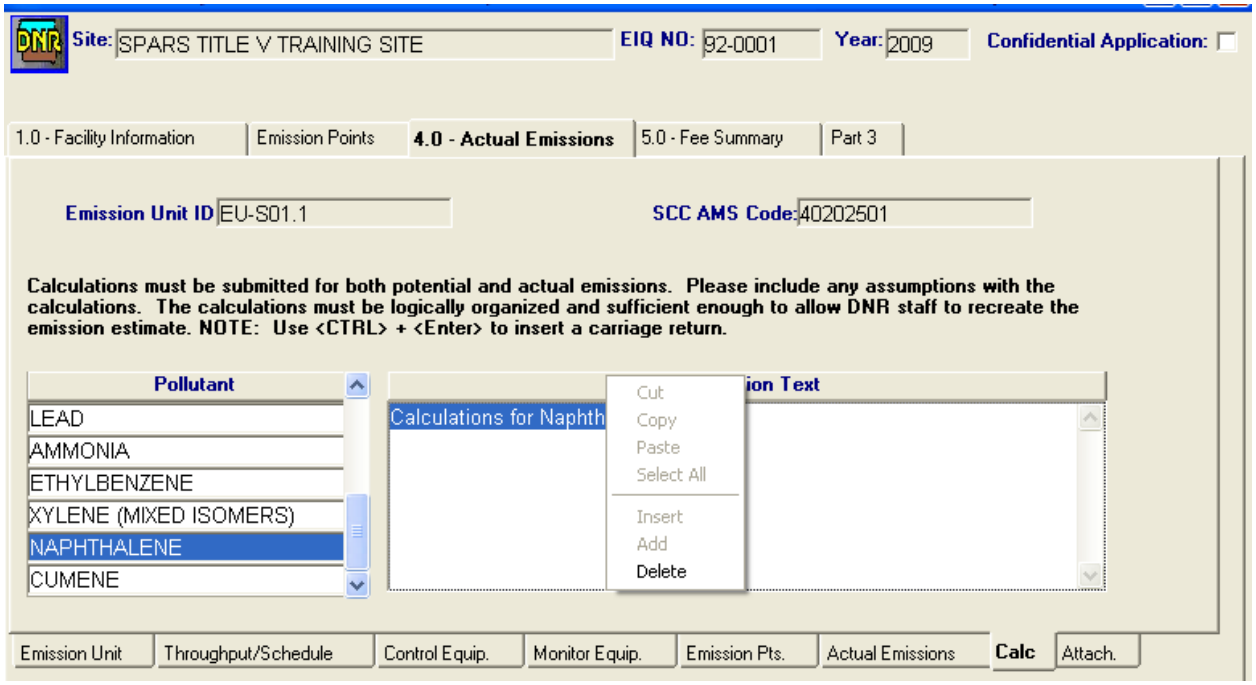


Figure 9.39 – Information to be deleted from the Calculation Text box

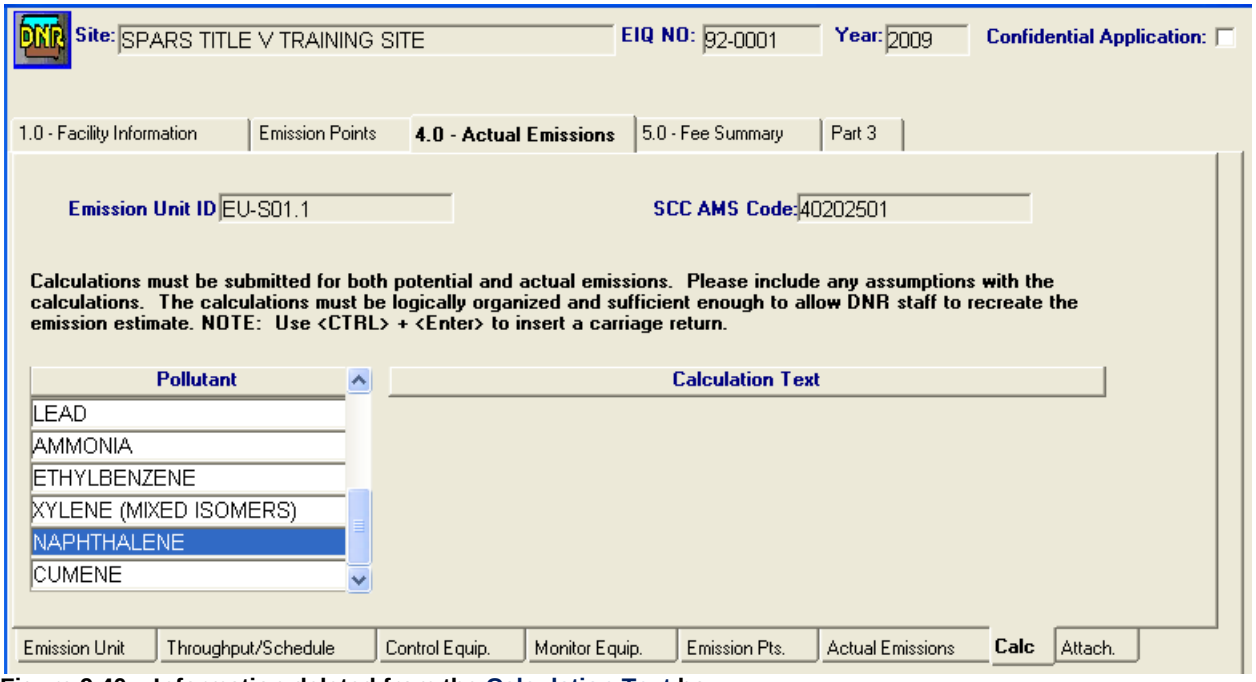


Figure 9.40 – Information deleted from the Calculation Text box

5. Click the **Actual Emissions** sub tab.

6. Highlight the pollutant to be removed.

7. Right click your mouse and choose "**Delete**" (see Figure 9.41). Save these changes.

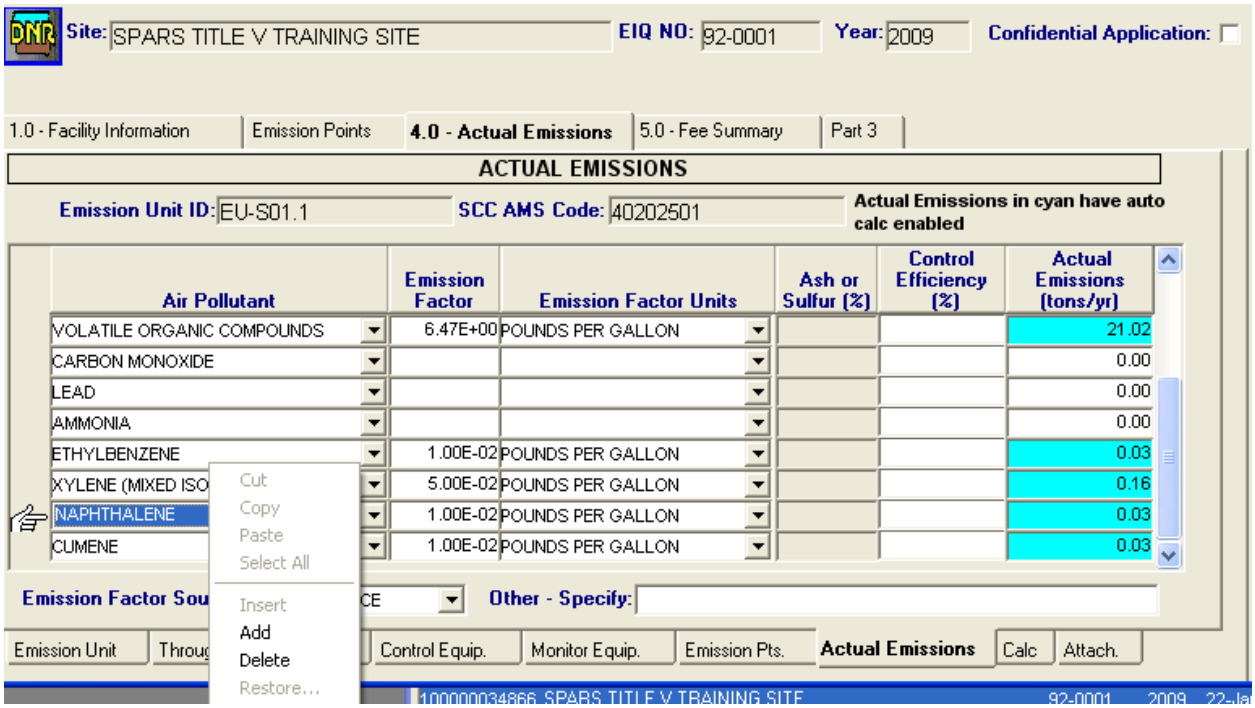


Figure 9.41 – Pollutant to be removed from this process.

8. Repeat Steps 1 through 7 for any other process from which one or more pollutants must be removed.

9.2.6 Summing Up Total Emissions from your Facility - Form 5.0 Fee Summary

1. Click the **5.0 – Fee Summary** tab.

2. Under the **Submission Type** sub tab, check **(a) Annual Emissions Summary**.

3. Click the **Actual Emissions** sub tab.

4. Click the **Update Totals from 4.0** button. A summary of the total emissions per pollutant will appear (see Figure 9.42).

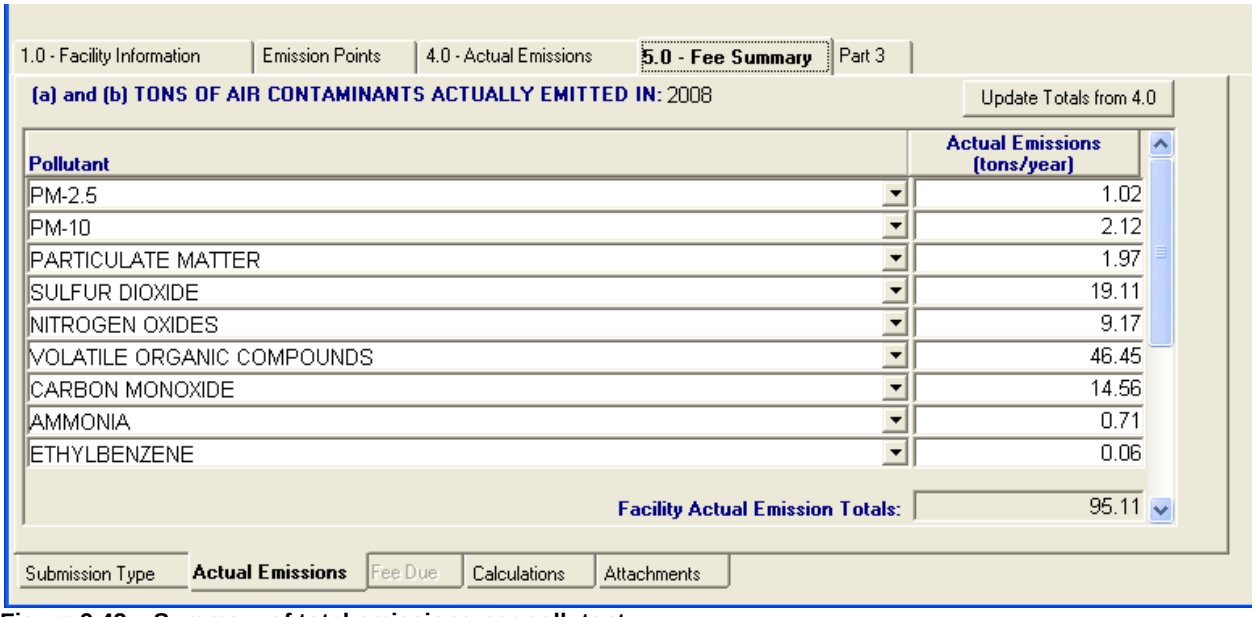


Figure 9.42 – Summary of total emissions per pollutant

> **IMPORTANT**: *If you make any changes to Form 4.0* ***after*** *pulling the summary in Form 5.0, you must return to Form 5.0 to pull a new summary by clicking the* ***Update Totals from 4.0*** *button again*.

5. Subtract HAPs which are included in the VOC and PM_{10} totals. To do this, add all the individual pollutants that are VOC HAPs. Right click under the **Pollutant** list and add "VOC HAP TOTAL." Enter the total VOC HAP as a negative number. For PM HAP, add all the individual pollutants that are PM HAPs. Right click under the **Pollutant** list and add "PM HAP TOTAL." Enter the total PM HAP as a negative number (see Figure 9.43). Save these updates.

6. Use the **Calculations** sub tab to document emission values associated with any applicable pollutant reported in the current inventory. This information will be included in the **CA-01 Form**. Save these updates.

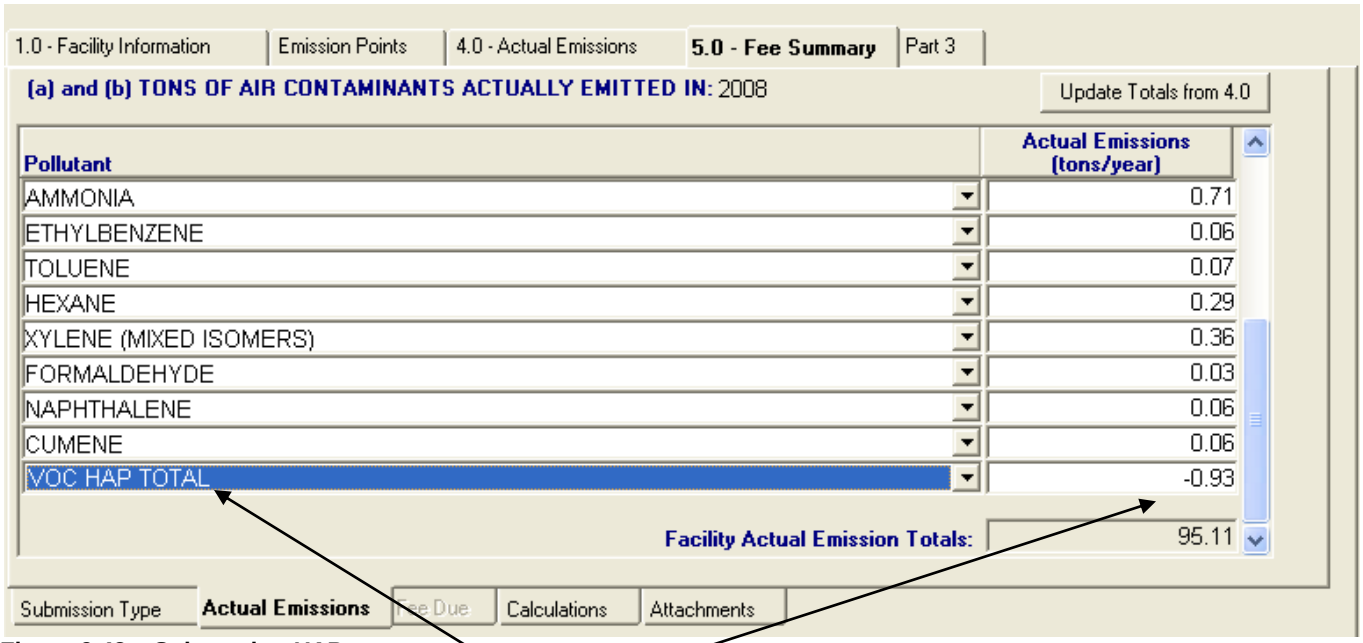


Figure 9.43 – Subtracting HAPs

Subtracting VOC HAPs.

NOTE: If you notice that a pollutant that was completely removed from Form 4.0 appears in Form 5.0, you must remove it from Form 5.0. To do this, highlight the pollutant to be removed, right click your mouse and choose "**Delete**" (see Figure 9.44). Save these changes.

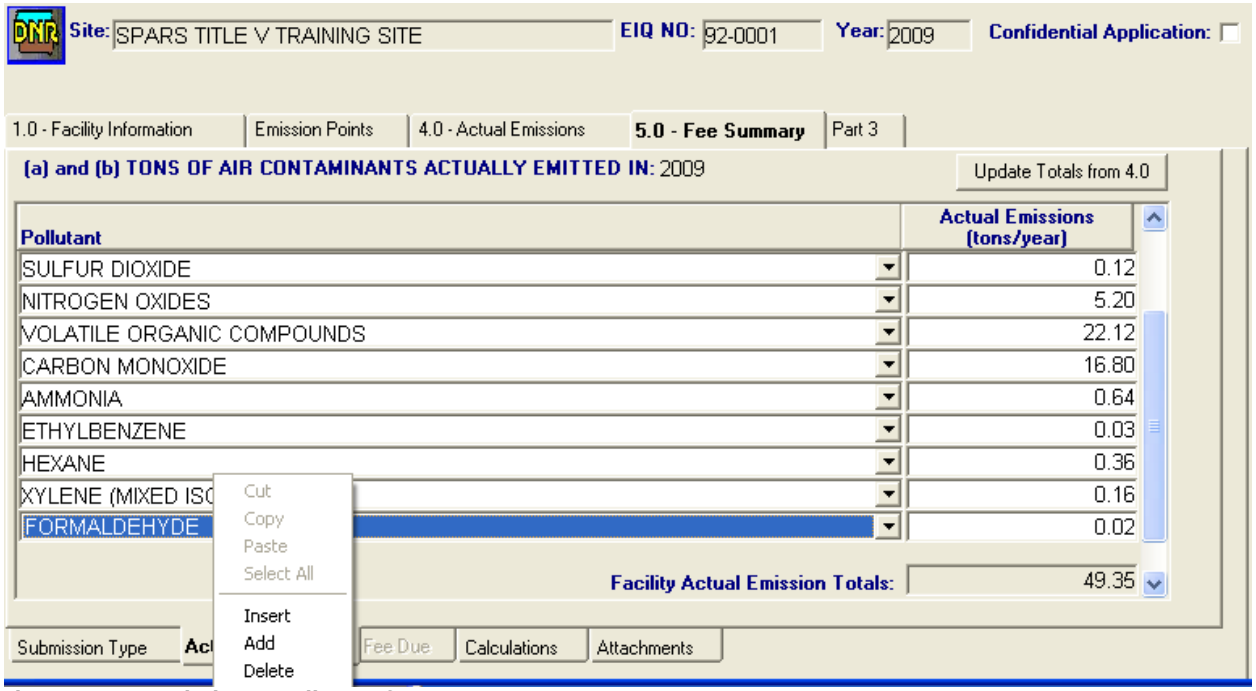


Figure 9.44 – Deleting a Pollutant from Form 5.0

9.2.7 Finalizing the Inventory – Part 3: Application Certification

Each Title V emissions inventory submitted without appropriate signature will not be considered to be complete.

To complete Part 3 of the inventory:

1. Click the **Part 3** tab.

2. Click the **Application Contents** tab and check the appropriate boxes (see Figure 9.45). Save these changes.

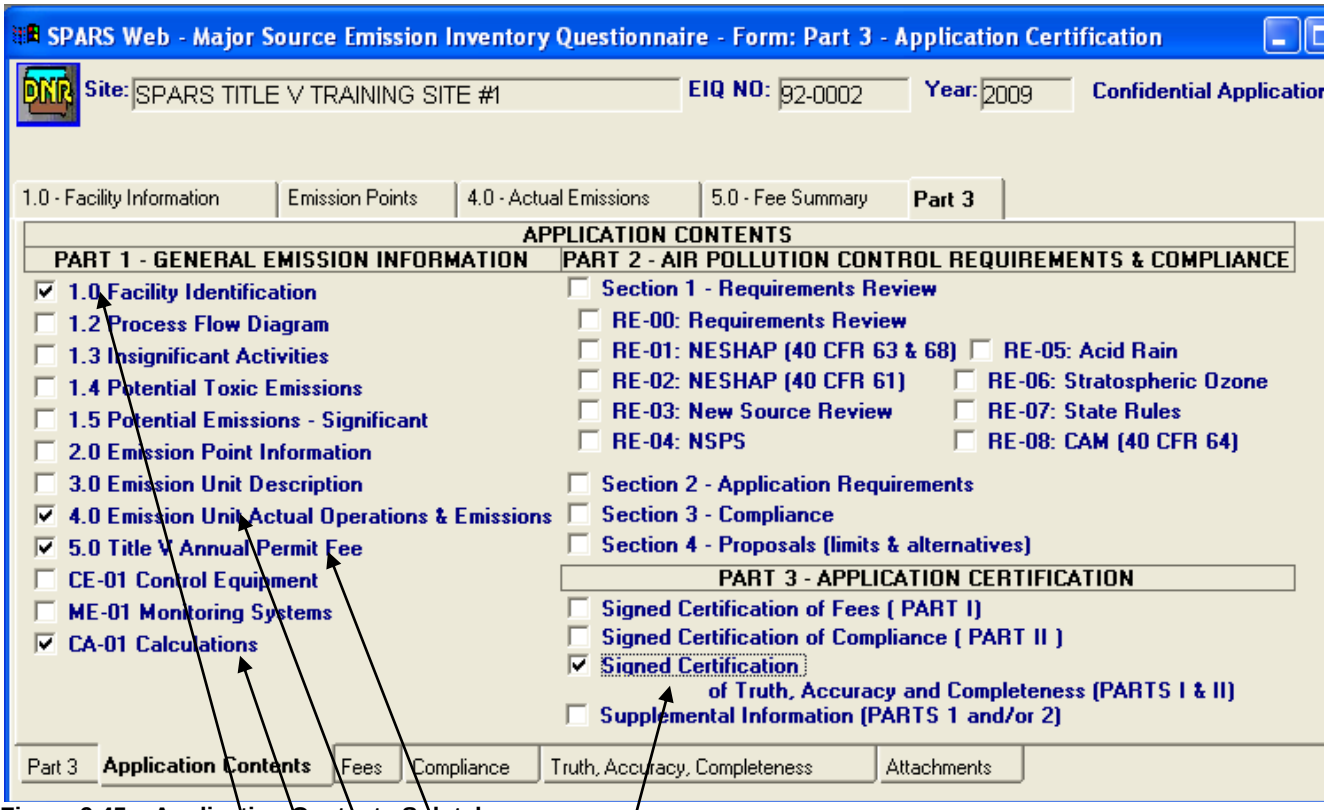


Figure 9.45 – Application Contents Sub tab.

The contents of the inventory include: *1.0 Facility Identification*, *4.0 Emission Unit Actual Operations & Emissions*, *5.0 Title V Annual Permit Fee*, *CA-01 Calculations*, and *Signed Certification of Truth, Accuracy, and Completeness*.

If you are ready to review the inventory by using the SPARS print-preview feature, go to Chapter 10. Otherwise, click the X on the top right corner to close the inventory.

10.0 Reviewing your newly created Title V Emissions Inventory

1. Open the Application Query Tool and select the facility for which you are completing the Title V emissions inventory.

2. Click on the **Title V Questionnaires** button to see all emission inventories for the selected facility.

3. Highlight your new Title V Emissions Inventory, which should be in **INDUSTRY Phase**.

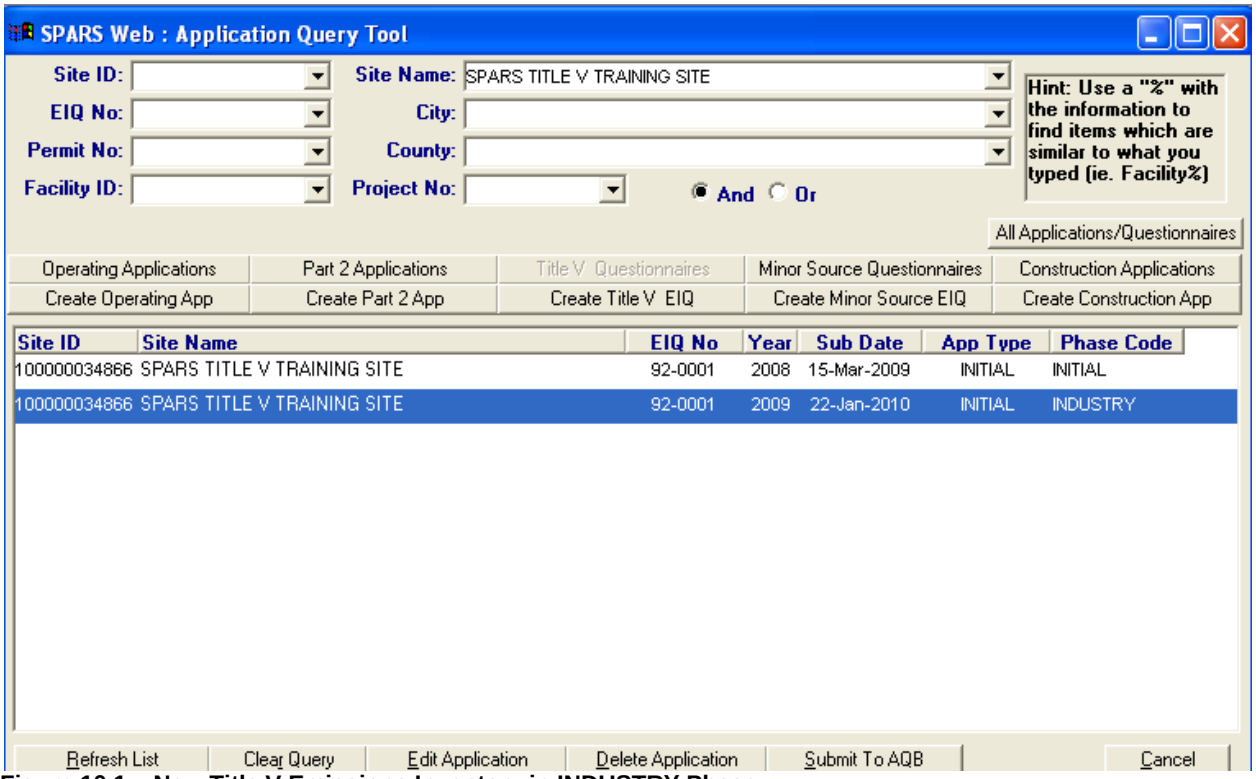


Figure 10.1 – New Title V Emissions Inventory in INDUSTRY Phase

4. Click the **Edit Application** button. Alternatively, you may double-click to bring up the highlighted inventory.

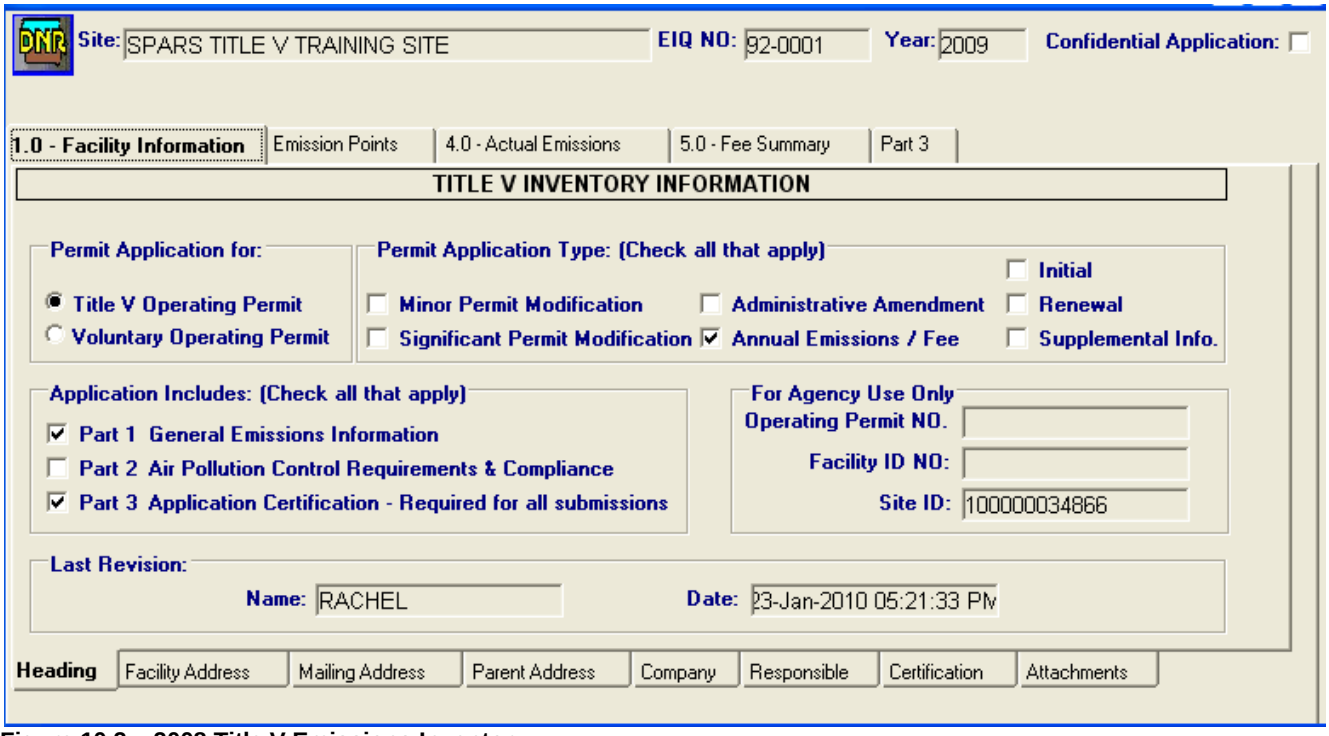


Figure 10.2 – 2008 Title V Emissions Inventory

5. Click on the print-preview icon:  (magnifying glass).

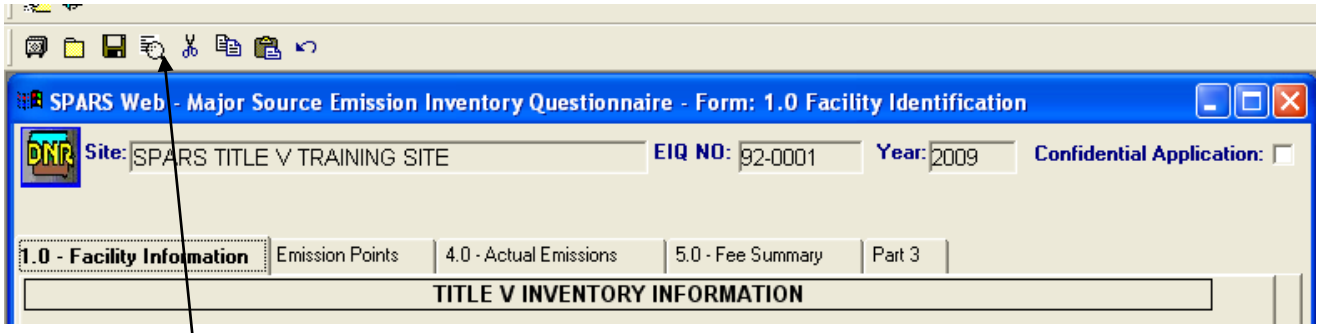


Figure 10.3 – Print-Preview

6. The following window opens:

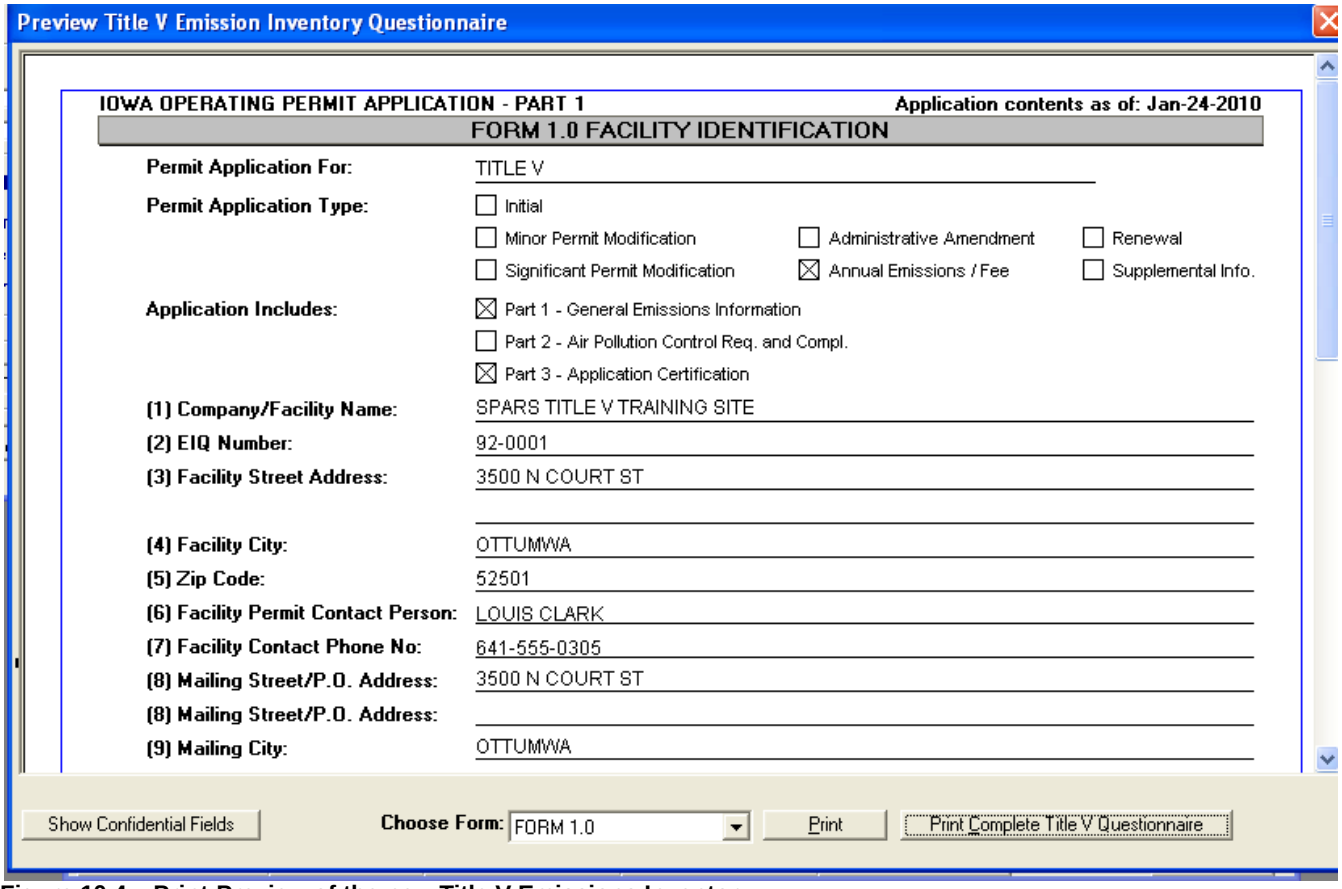


Figure 10.4 – Print-Preview of the new Title V Emissions Inventory

7.0 You are now able to print the inventory by each form or in its entirety.

> **NOTE:** Remember that in order to review information contained in inventories already submitted to DNR, you must used the print-preview feature as described in this chapter.

11.0 Signing and Submitting your Title V Emissions Inventory

Only Responsible Officials may submit applications and inventories to the AQB. In addition, it is required that Responsible Officials sign a certification statement **before** a Title V emissions inventory is submitted to the AQB.

11.1 Signing a completed Title V emissions inventory

1. After logging in *as the Responsible Official,* open the Application Query Tool and select the facility for which you will be submitting the Title V emissions inventory.

2. Click the **Title V Questionnaires** button.

3. Find the Title V Questionnaire in the **INDUSTRY Phase** and highlight it. *IMPORTANT: Only applications and questionnaires on the INDUSTRY Phase can be submitted to the AQB*.

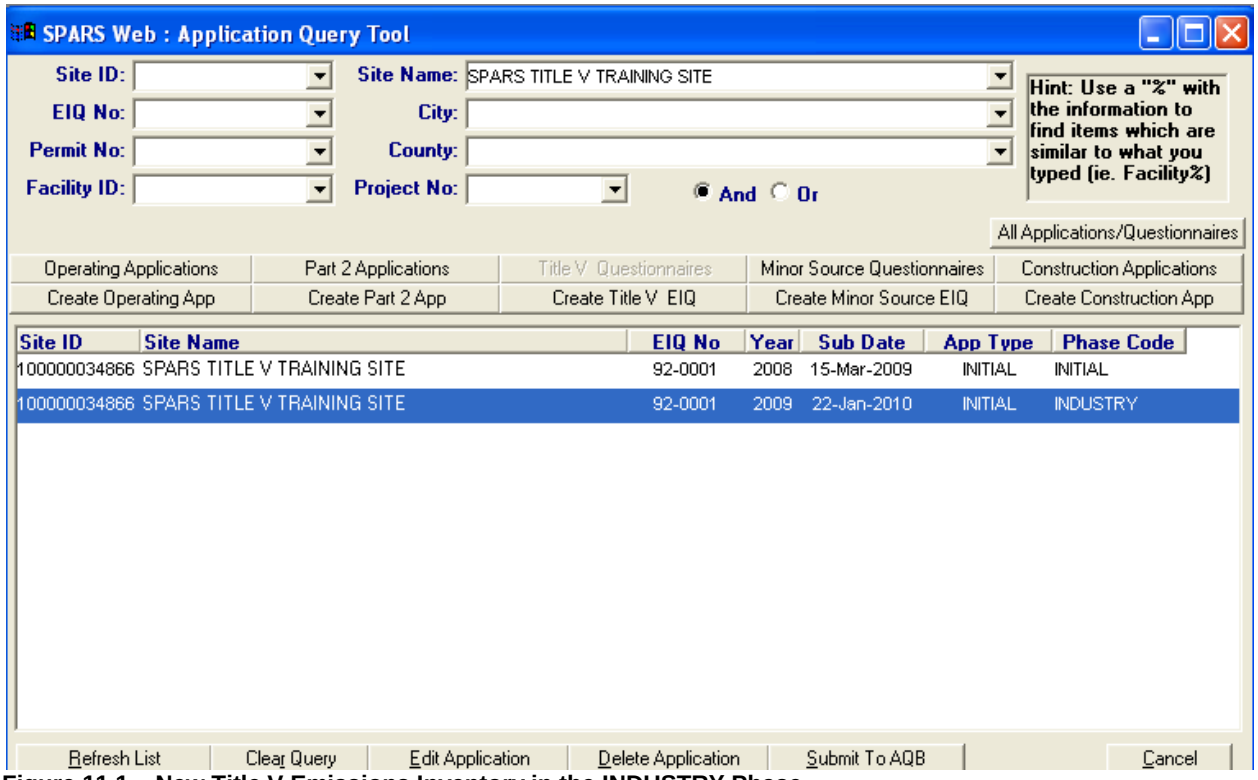


Figure 11.1 – New Title V Emissions Inventory in the INDUSTRY Phase

4. Double-click to open the new Title V inventory.

5. Click the **Part 3** tab and choose the **Truth, Accuracy and Completeness** sub tab.

6. Check the **Signature of Responsible Official** box and enter the date in the **Signature Date** box (see Figure 11.2). ***It is very important to do this***. Your inventory will be deemed incomplete if the signature box is not checked and/or the date is not correct.

Figure 11.2 – Signing the Truth, Accuracy, and Completeness Statement

7. Save the inventory.

11.2 Submitting a completed Title V emissions inventory

1. After signing the completed Title V emissions inventory, close the inventory.

2. On the Application Query Tool, find the new Title V Questionnaire, which should be in **INDUSTRY Phase** and highlight it (see Figure 11.1).

3. Click the **Submit to AQB** button. IMPORTANT: When the inventory on the *INDUSTRY Phase* is highlighted, the **Submit to AQB** button will be active; otherwise, the button will be inactive and the words grayed out.

4. A box will pop-up for the Responsible Official to enter the assigned PIN (see Figure 11.3).

5. After entering the PIN, click **OK** to submit, or **Cancel** if you are not ready to submit.

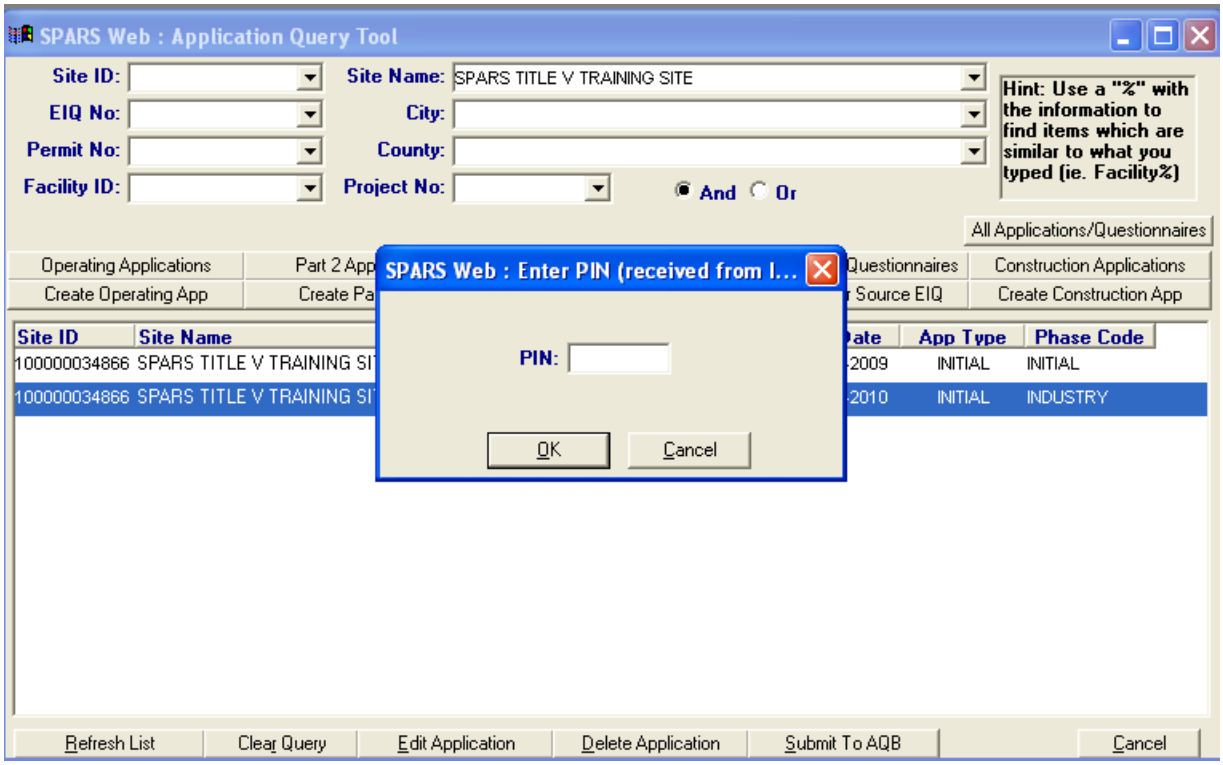


Figure 11.3 – PIN Box

6. If successfully submitted, a notice will appear: **The application has been submitted to AQB**. If not successfully submitted, an error message will appear, instead.

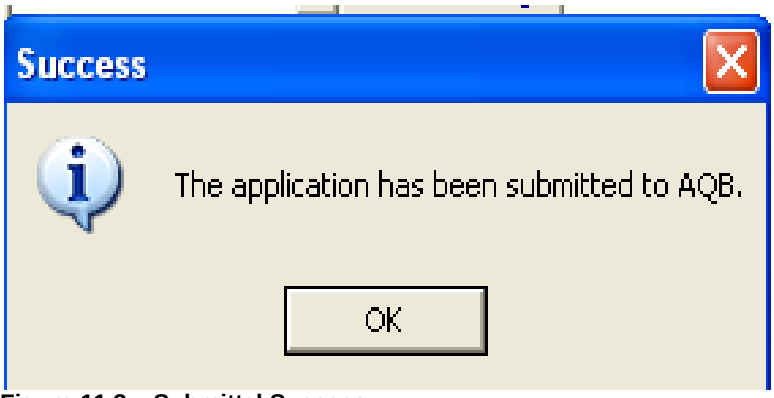


Figure 11.3 – Submittal Success

7. After clicking OK, the phase code for the application changes to INITIAL, indicating that the facility user can no longer make changes to this application (see Figure 11.4).

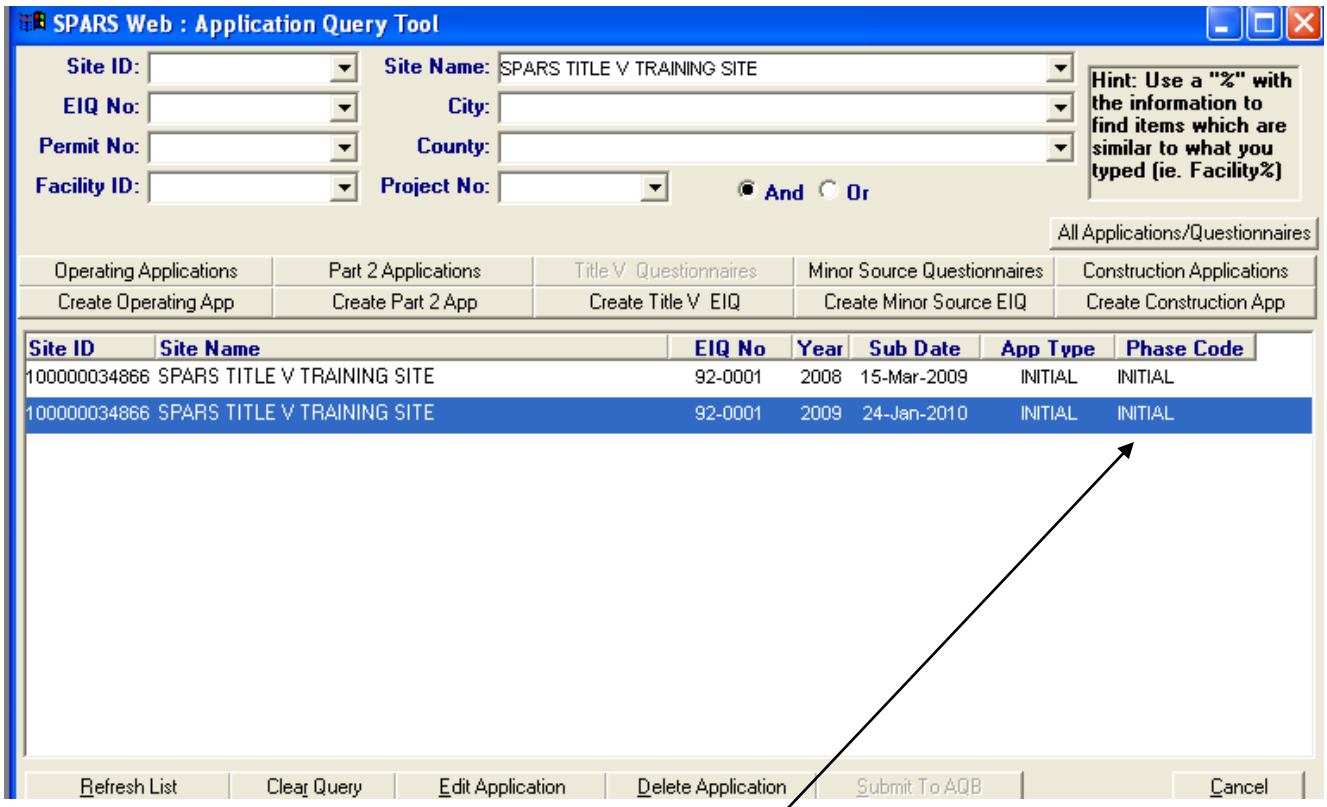


Figure 11.4 – This inventory has an INITIAL phase code; therefore, it is no longer available for modifications by facility users.

8. Within 1 – 2 days, the Responsible Official and the Facility Administrator will be informed via E-mail that the inventory has been received by the AQB.

12.0 Correcting your Title V Emissions Inventory after Submittal

If mistakes are discovered **after** submission to the AQB, you will need to create a supplement of the inventory that needs to be modified.

To create a supplement:

1. Open the Application Query Tool and select the facility for which you will be creating the supplemental inventory.

2. Click on the **Create Title V EIQ** button. The **Inventory/Application Date & Year** window opens.

3. In the **Emission Inventory/Application Year** field, enter the ***same*** Inventory Year as the one for the inventory you are planning to correct.

4. Select the radio button for **Copy Data from Previous Document**. Select the inventory to be corrected.

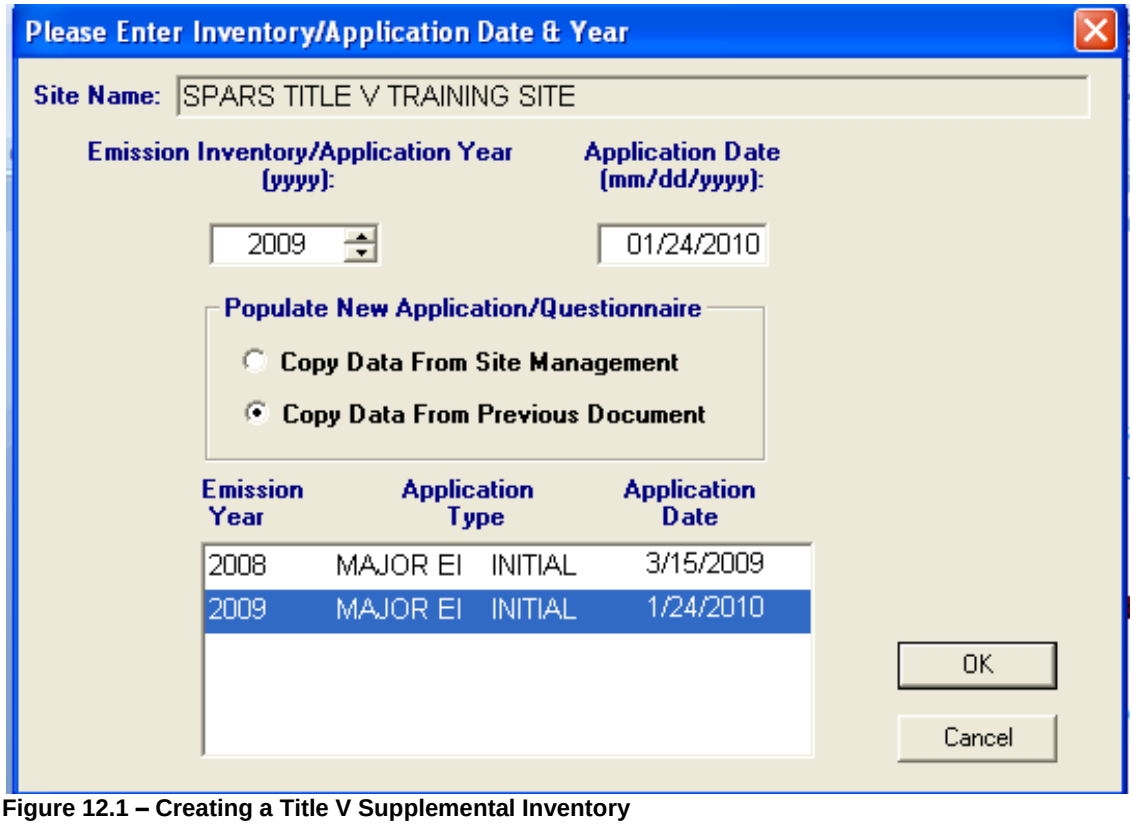


Figure 12.1 – Creating a Title V Supplemental Inventory

5. A supplemental inventory in the INDUSTRY Phase will be created (see Figure 12.2).

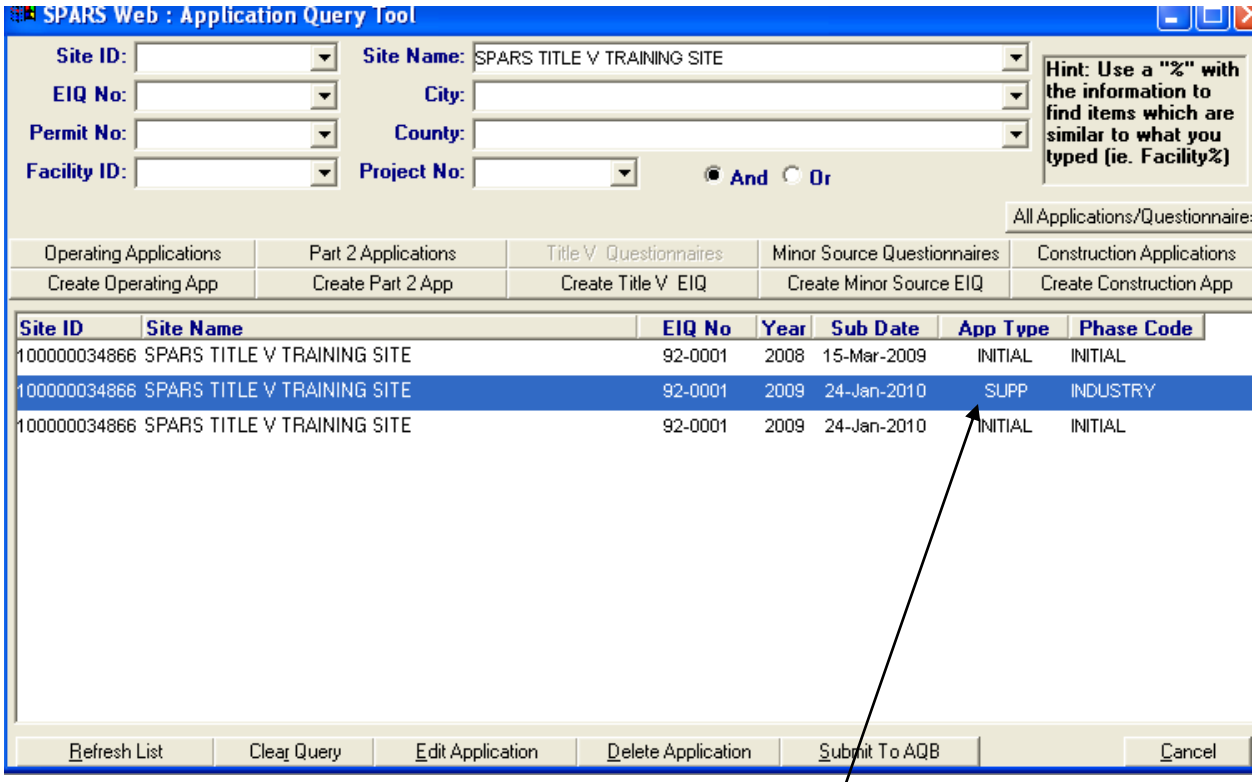


Figure 12.2 – Supplemental Title V Emissions Inventory in the INDUSTRY Phase

6. The supplemental inventory is an exact replica of the original inventory; therefore, you will only need to make modifications to those sections that need it.

7. After corrections are completed, the Responsible Official will have to sign and submit the supplemental inventory to the AQB.

NOTE: If you are not able to complete the supplemental emissions inventory during one session, you may access the inventory at any time by doing the following:

a. Open the Application Query Tool.
b. Select the facility that you are interested in.
c. Click on the **Title V Questionnaires** button to see existing emission inventories for the selected facility.
d. Highlight the supplemental inventory and double-click.

13.0 Contacts and On-line Resources

13.1 DNR Air Quality Contacts

SPARS Questions

- Rachel Quill, 515-281-8983
  Rachel.Quill@dnr.iowa.gov

- Jason Dowie, 515-281-8568
  Jason.Dowie@dnr.iowa.gov

- SPARS Helpdesk
  Phone: 515-281-8568, or
  515-281-8983
  Fax: 515-242-5094
  SPARShelpdes@dnr.iowa.gov

Emissions Inventory Questions

- Weston Li, 515-281-8500
  Weston.Li@dnr.iowa.gov

- Chris Kjellmark, 515-281-7826
  Chris.Kjellmark@dnr.iowa.gov

Greenhouse Gas Questions

- Marnie Stein, 515-281-8468
  Marnie.Stein@dnr.iowa.gov

13.2 On-line Resources

DNR Air Quality Bureau
www.iowacleanair.com

DNR Title V Emissions Inventory Forms
www.iowacleanair.com
Click on "**Emissions Inventory**" then on "**Title V Sources**" then on "**Title V/CAIR Applications, Emissions Inventory/Fee Payment – Forms & Instructions**."

EPA Emission Factors
To access AP-42 and WebFIRE emission factors go to:
www.epa.gov/ttn/chief/efpac/index.html

SIC Codes
www.osha.gov/pls/imis/sicsearch.html

SCC Codes
www.iowacleanair.com
Click on "Emissions Inventory" and scroll down to "Frequently Used Emissions Inventory Resources." Click on "Source Classification Code (SCC) List." Ethanol and Biodiesel plants should click on "Ethanol and Biodiesel Source Classification Code (SCC) List."

Greenhouse Gas Inventory Forms
www.iowacleanair.com
Click on "**Emissions Inventory**" then on "**Title V Sources**" then on "**Title V/CAIR Applications, Emissions Inventory/Fee Payment – Forms & Instructions**" then on "**Greenhouse Gas Emissions**."

SPARS Web
www.iowacleanair.com
Click on "SPARS"

Iowa Administrative Code (IAC)
http://www.legis.state.ia.us/IAC.html
See section 567, Chapters 20-34